IMPAACT P1093

Laboratory Processing Chart (LPC)

Version 5.4
Protocol Version 5.0 Date 12 JUL 2018 and Corrected Clarification Memorandum #1
LPC Edited Date 27 February 2020

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<th>Week 4</th>
<th>Week 8</th>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>±1 wk</td>
<td>±1 wk</td>
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<td>±2 wks</td>
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<tr>
<td><strong>Total Maximum Blood Volumes 20</strong></td>
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<td>11mL</td>
<td>13mL</td>
<td>9mL</td>
<td>6mL</td>
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<td>14.5mL</td>
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Cohorts I, IIA, IIB, III and III-DT – Stage I  
Virologic Failure, Dose Adjustment and Premature/DC of Study Drug Visits  
Copied from Appendix IA Schedule of Evaluations (cont’d)

<table>
<thead>
<tr>
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<th>Virologic Failure</th>
<th>[Dose Adjustment PK Visit]</th>
<th>[Dose Adjustment Safety Visit]</th>
<th>Premature/DC of Study Drug On study</th>
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<tr>
<td>Visit Windows</td>
<td>-</td>
<td>If requested, 5 to 14 days after initiation of the dose adjustment</td>
<td>4 weeks post dose modification (-1 wk/+ 2 wk)</td>
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**LABORATORY EVALUATIONS**

<table>
<thead>
<tr>
<th>Test</th>
<th>Volume</th>
<th>Volume</th>
<th>Volume</th>
<th>Volume</th>
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<td>1mL</td>
<td>1mL</td>
</tr>
<tr>
<td>Chemistries</td>
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<td>1mL</td>
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<td>1mL</td>
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<tr>
<td>Lipid profiles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PBMCs / plasma for storage (includes integrase resistance sample)</td>
<td>6.5mL</td>
<td>6.5mL</td>
<td>6.5mL</td>
<td>6.5mL</td>
</tr>
<tr>
<td>Urinalysis</td>
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<tr>
<td>Microalbumin/creatinine ratio - urine</td>
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<tr>
<td>Pregnancy test</td>
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**Virology**

<table>
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<tr>
<td>HIV-1 RNA PCR</td>
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**Immunology**

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<th>Volume</th>
<th>Volume</th>
<th>Volume</th>
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<tbody>
<tr>
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**Pharmacokinetic studies**

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<td>STAGE I - Population PK</td>
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<td>Total Maximum Blood Volumes</td>
<td>3mL</td>
<td>16.5mL</td>
<td>[0.5 – 4mL]</td>
<td>10mL</td>
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</table>
For insufficient blood draws, priorities are as follows: Hematology; Chemistry; Pharmacology; Virology; Lymphocyte subsets; Plasma and PBMC storage for future immunology studies; Lipid profile.

Appendix IA Footnotes

1. After obtaining Informed Consent, evaluations should be completed within 30 days prior to study entry.

2. History and physical exam (including height, weight, vital signs [temperature, pulse, respirations and blood pressure], occurrence of adverse events since last study visit and HIV-1 associated conditions). Weight should be measured without shoes and with minimal clothing. For female participants 9 years of age and older, menarche status and for participants who have reached menarche; sexual activity and contraceptive use.

3. For information on Tanner Staging assessment, see P1093 MOP.

4. Electrolytes (sodium, potassium, and HCO₃⁻), glucose, creatinine, lipase, phosphorus, and LFTs. LFTs should include total bilirubin, indirect bilirubin, direct bilirubin, alkaline phosphatase, AST, ALT, and albumin. If indirect bilirubin is not reported by the site laboratory, it should be calculated at the site and documented. The following formula can be utilized: indirect bilirubin = total bilirubin – direct (or "conjugated") bilirubin.

   The following (listed in order of preference) should be used to determine the upper limit of normal (ULN) values for indirect bilirubin.
   a. "ULN" values reported by the laboratory report for the test, or
   b. "ULN" values routinely used/established by the site or
   c. ‘ULN" values as per the most current Harriet Lane Handbook. (In the 2018 version of the Harriet Lane Handbook, for a full term infant, the ULN for total bilirubin is 1.2 mg/dL (21 μmol/L) and for direct bilirubin is 0.2 mg/dL (3.4 μmol/L); thus the ULN for indirect bilirubin would be 1.0 mg/dL (17.6 μmol/L)).

   Sites must be consistent with the way toxicities are evaluated for all participants in the study; sites should use the same source throughout the study. Remember to have documentation of calculated indirect bilirubin and source of "ULN", when not reported by your laboratory.

5. Lipid Profile (triglycerides, cholesterol, HDL, LDL) will be drawn in a non-fasting state. However, if triglycerides are grade 2 (using DAIDS toxicity table for fasting triglycerides), a complete fasting state lipid profile (triglycerides, cholesterol, HDL, and LDL) must be drawn. Fasting intervals will be overnight or at least 8 hours. After a participant has had a grade 2 triglycerides in non-fasting state, all future triglycerides must be obtained in fasting state.

6. M/C ratio – microalbumin / creatinine ratio (mcg/mg creatinine)

7. Pregnancy test (urine or serum beta hCG) must be performed on all females of reproductive potential within 72 hours prior to enrollment. Subsequent tests should be performed at each visit. If a blood test is performed, collect 1.0mL in a red top serum tube.
8. Phenotyping will occur where there is sufficient blood volume collected. HIV-1 phenotyping will NOT be performed in real time and will NOT be used to determine optimized background therapy (OBT). Specimens should be stored at the local site and shipped in batches when requested by the Protocol Team.

9. Lymphocyte subset blood samples should be collected in EDTA tubes. These samples will be analyzed for CD4 and CD8.

10. Refer to Section 9.2 for additional instructions around intensive PK sampling.

The pharmacokinetic evaluation should be scheduled so that witnessed dosing of DTG is as close as possible to 24 hours (generally 22-26 hours) after the previous dosing. Participants should have been compliant in taking their medications for 3 days prior to the intensive PK visit; otherwise the intensive PK visit should be re-scheduled.

Intensive PK should be done in a fasted state following the guidelines below and Section 9.2.1.1, unless instructed otherwise by the Protocol Team.

- ≥6 hours PRIOR to dosing – participants may eat and drink without restriction
- ≥4 to <6 hours PRIOR to dosing – milk, apple/orange juice and water may be consumed; No food
- <4 hours PRIOR to dosing – water ONLY
- From dosing to <2 hours POST dose – apple/orange juice and water may be consumed; No food
- From ≥2 to <4 hours POST dose – participants may drink apple/orange juice and eat a snack/light meal (around 100-150 calories)
- From ≥4 hours POST dose onwards – participants may eat and drink without restriction

For participants who vomit within 4 hours after dosing; PK must be cancelled and may be rescheduled. Blood samples (0.5mL) will be collected at the following timepoints: pre-dose, 1, 2, 3, 4, 6, 8 and 24 hours post dosing. The 24-hour sample must be collected prior to the next dose. To allow for some flexibility, the 8-hour sample can be collected with a window of 7-9 hours post-dose and the 24-hour sample with a window of 22-26 hours. US sites will ship intensive PK samples in real time to UAB; all non-US sites will ship PK samples in real time to BRI repository for a ‘pass-through’ (see LPC for instructions).

11. Blood samples (0.5mL per sample) will be collected per timepoint at Weeks 4, 12 and 24. Participants will have 2 blood sample collected at week 4: pre-dose and 2-4 hours post-dose. At week 12, 1 blood sample will be collected at any time point post dose. At week 24, 2 blood samples will be collected two hours apart between 12 and 26 hours post-dose. Samples to be batched and shipped as described in the LPC. For sample collection timepoints for the ‘Two Weeks Post Switch Visit’ and ‘Next Scheduled Visit after Post Switch Visit’ refer to footnotes 14 and 15 below. For participants on BID dosing refer to the study MOP for sampling time points.

12. Entry must occur within 30 days of screening.

13. If a participant meets a criterion for suspected virologic failure, as defined in Section 6.5 collect a confirmatory HIV-1 RNA PCR sample at least 1 week but not more than 4 weeks from the date of specimen collection of the initial RNA PCR test. If a sample cannot be obtained within weeks, samples should be collected as soon as possible beyond 4 weeks.

14. If a participant is confirmed as having virologic failure, as defined in Section 6.5, conduct a Virologic Failure Visit at least one week and within four weeks later.

15. Per Section 6.4 participants who underwent a dose modification and for whom additional PK sampling (intensive or population sampling) was requested by the Protocol Team collect intensive or population PK samples (per Protocol Team request only) 5 – 14 days after initiation of the DTG dose adjustment. (If this visit is scheduled to occur during another scheduled visit a combined visit can be done and procedures do not need to be duplicated.)
16. Per Section 6.4 (of protocol), for participants who underwent a dose modification, as requested by the Protocol Team, a safety visit should be done 4 weeks (-1 wk/+2 wks) after initiation of the DTG dose adjustment. (If this visit is scheduled to occur during another scheduled visit a combined visit can be done and procedures do not need to be duplicated.)

17. Participants, who discontinue study drug early, should remain on study and follow Appendix IF.

18. A baseline specimen should also be sent with the genotype virologic failure specimen. This specimen may be a baseline (Day 0 entry) storage sample or leftover sample from baseline genotyping (screening). Please refer to the Laboratory Processing Chart (LPC) for additional details.

19. Only if not done at virologic failure.

20. The blood volumes listed are ideal, but may not always be possible due to site-specific regulations or challenges with phlebotomy in certain participants. For insufficient blood draws, priorities are as follows: hematology; chemistry; pharmacokinetic studies; HIV-1 RNA; genotyping; lymphocyte subsets; plasma and PBMCs/plasma for storage; phenotyping; lipid profiles.

### Section 2 (Cohorts I, IIA, IIB, III and III-DT - STAGE I): Safety/Clinical Laboratory Evaluations

*Defer to local clinical specimen collection guidelines for tube types and collection volumes whenever discrepancies occur.*

<table>
<thead>
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<th>DMC Test Code</th>
<th>Tests</th>
<th>CRF #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>N/A</td>
<td>CBC (to include platelet and differential)</td>
<td>PE6811</td>
</tr>
<tr>
<td>Chemistry</td>
<td>N/A</td>
<td>Chemistry-Electrolytes (sodium, potassium, HCO$_3^-$), glucose, creatinine, lipase, phosphorus, and LFTs (total bilirubin, indirect bilirubin, direct bilirubin, alkaline phosphatase, AST, ALT, and albumin.)</td>
<td>PE6816</td>
</tr>
<tr>
<td>Lipid Profile</td>
<td>N/A</td>
<td>Lipid profile- triglycerides, cholesterol, HDL, LDL</td>
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</tr>
<tr>
<td>Urinalysis</td>
<td>N/A</td>
<td>Urinalysis (dipstick only)</td>
<td>PE0811</td>
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<tr>
<td>Pregnancy Test</td>
<td>N/A</td>
<td>Urine or serum HCG (pregnancy test) (urine test must have a sensitivity of ≤25mIU/mL)</td>
<td>F0847</td>
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### Section 3 (Cohorts I, IIA, IIB, III and III-DT - STAGE I): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF # DMC Test Code</th>
<th>Processing</th>
<th>Shipping</th>
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</thead>
<tbody>
<tr>
<td>PBMCs/plasma for storage (includes integrase resistance sample)</td>
<td>EDTA</td>
<td>Send to IMPAACT processing lab ambient</td>
<td>F3006 STORVIR</td>
<td>Spin blood at 400xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Freeze 3x1 ml aliquots at -70°C or colder. Ficoll and cryopreserve PBMCs per the Cross Network Cryopreservation SOP. Freeze PBMCs viably in 5X10⁶ cells/0.5 ml aliquots.</td>
<td>NIAID sites: Store on site and Ship to BRI as directed. NICHD sites: Store on site and Ship to Fisher as directed.</td>
</tr>
<tr>
<td>M/C Ratio Assay Microalbumin/creatinine ratio (mcg/mg creatinine)</td>
<td>Urine</td>
<td>N/A</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at -20°C or colder. NOTE: Ship on frozen cold packs or dry ice depending on instructions from testing lab.</td>
<td>US sites ship real time to Quest Diagnostics. International sites ship real time as follows: Africa Sites – Contract Lab Services (CLS) Johannesburg, SA South America – Quest Laboratory (33) Thailand – Siriraj Lab, Thailand</td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>EDTA</td>
<td>Invert tube 8 to 10 times gently. Send to IMPAACT (NAIAD) or (NICHD) processing lab ambient.</td>
<td>F3006 (and F3109 if results are not reported through LDMS) RNAHIV</td>
<td>Spin blood at 800xg for 10 min. Transfer plasma and re-spin at 800xg for 10 min. Freeze 1x1 mL aliquot and any residual plasma in a second aliquot at -70°C, or colder.</td>
<td>US labs: Can be performed at any local CLIA certified lab. Non US labs must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Resistance (Genotyping) (SCREENING VISIT) RT/PR drug resistance testing NOT (INT) Integrase</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 GENOHIV</td>
<td>US sites ship real time to LDMS LAB 238. Include UW requisition form found on P1093 Website. International sites ship real time as follows: <strong>Kenya and Uganda-Local lab testing</strong>. <strong>Other Africa Sites</strong>—Contract Lab Services (CLS) Johannesburg, SA <strong>South America</strong>—Fiocruz, Brazil <strong>Thailand</strong>—PHPT lab, Chiang Mai, Thailand.</td>
<td></td>
</tr>
<tr>
<td>Resistance (Genotyping) (VIROLOGIC FAILURE or Premature DC of Study Drug/On Study) RT/PR and INT drug resistance testing</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 GENOHIV</td>
<td>US sites - Ship Real Time to LDMS LAB 238. Include UW requisition form found on P1093 Website. <strong>All International Sites</strong> - Ship real time to LDMS Lab 238 (utilizing BRI as Pass Through). Include UW requisition form found on P1093 Website.</td>
<td></td>
</tr>
<tr>
<td>Resistance (Phenotyping) NOTE: To be collected only if sufficient blood volume</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 PHENOHIV</td>
<td>US sites store on site and ship to Monogram when requested. International sites store on site and ship to BRI as pass through when requested. (Final Destination Monogram)</td>
<td></td>
</tr>
<tr>
<td>Lymphocyte subsets-CD3/CD4, CD3/CD8 cell counts and percentages</td>
<td>EDTA</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study</td>
<td>LBW0054 CD4CD8</td>
<td>Dual platform labs only must also have a WBC and diff.</td>
<td>N/A</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>STAGE I-Intensive Pharmacokinetics</td>
<td>EDTA</td>
<td>Subjects must be fasted for 4 hours prior to dosing (see Section I footnote #8 for additional info.) Time points: Pre-dose, 1, 2, 3, 4, 6, 8 and 24 hours post dosing. Send to local IMPAACT processing lab on ice.</td>
<td>PKW0290 PKINT</td>
<td>Centrifuge blood within one hour of collection at 1000 x g for 10 minutes at 0-5°C. Transfer all plasma to one pre-labeled 2 ml cryovial, and freeze immediately after processing at -70°C or colder.</td>
<td>US sites ship to UAB real time. Send a copy of PKW0290 to the PK testing lab when samples are shipped. International sites ship to BRI real time as Pass Through (Final Destination UAB). Send a copy of PKW0290 to the PK testing lab when samples are shipped.</td>
</tr>
<tr>
<td>STAGE I- Population Pharmacokinetics</td>
<td>EDTA</td>
<td>Samples collected at different time points depending on the visit day. Send to local IMPAACT processing lab on ice.</td>
<td>PKW0291 PKPOP</td>
<td>Centrifuge blood within one hour of collection at 1000 x g for 10 minutes at 0-5°C. Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at -70°C or colder.</td>
<td>US sites ship every 24 weeks to UAB. Send a copy of PKW0291 to the PK testing lab when samples are shipped. International sites ship every 24 weeks to BRI as a pass-through (Final Destination UAB). Send a copy of PKW0291 to the PK testing lab when samples are shipped.</td>
</tr>
</tbody>
</table>
### Section 4 (Cohorts I, IIA, IIB, III and III-DT - STAGE I): Evaluations by Visit - refer to Section 3 for processing instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Specimen</th>
<th>CRF</th>
<th>Aliquots</th>
<th>LDMS Code</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SCREENING (O/Screen)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Lipid Profiles</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab. Non-fasting unless triglycerides are ≥Grade 2 (using DAIDS toxicity table for fasting triglycerides), then complete fasting state lipid profile must be done. Once subject has ≥Grade 2 non-fasting, all future lipid profiles must be fasting.</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>Urine</td>
<td>PE0811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥1 x 1 ml aliquots at –70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td><strong>Genotyping</strong></td>
<td>2.0 mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at –70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>RT/PR drug resistance testing NOT Integrase</td>
</tr>
<tr>
<td><strong>Phenotyping</strong></td>
<td>2.0mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at –70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>To be collected only if sufficient blood volume</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
</tbody>
</table>
## ENTRY (DAY 0)

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Sample Volume</th>
<th>Code</th>
<th>Notes</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>PBMCs/plasma for storage</strong></td>
<td>7.0 ml EDTA Blood</td>
<td>F3006</td>
<td>Freeze 3x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5x10⁶ cells/0.5 ml aliquots.</td>
<td>BLD/EDT/PL2 BLD/EDT/CEL/DMS Send to IMPAACT processing lab ambient.</td>
</tr>
<tr>
<td><strong>M/C Ratio Assay</strong></td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at −20°C or colder.</td>
<td>URN/NON/URN</td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2 US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0ml EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry) Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
</tbody>
</table>
### INTENSIVE PK VISIT – DAY 5-10

<table>
<thead>
<tr>
<th>Test</th>
<th>Sample Type</th>
<th>Tube Code</th>
<th>Time Points</th>
<th>Storage Requirements</th>
<th>Process Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at -70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs: Can be performed at any local CLIA certified lab. Non-US labs: Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Abbott Real Time HIV1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intensive Pharmacokinetics</td>
<td>0.5mL EDTA per time point</td>
<td>PKW0290</td>
<td>Time points: pre-dose, 1, 2, 3, 4, 6, 8 and 24 hours post dosing.</td>
<td>Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at -70°C or colder.</td>
<td>BLD/EDT/PL1</td>
</tr>
</tbody>
</table>

NOTE: See LPC footnote #8 for specific requirements for compliance and food and liquid intake on PK day.
<table>
<thead>
<tr>
<th>WEEK 4 VISIT (±1 week)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR</strong></td>
</tr>
<tr>
<td><strong>Population Pharmacokinetics</strong></td>
</tr>
<tr>
<td>WEEK 8 VISIT (± 1 week)</td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
</tr>
<tr>
<td><strong>Urinalysis</strong></td>
</tr>
<tr>
<td><strong>M/C Ratio Assay</strong></td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR</strong></td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
</tr>
<tr>
<td><strong>Population Pharmacokinetics</strong></td>
</tr>
<tr>
<td>WEEK 16 VISIT (± 1 week)</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
</tr>
<tr>
<td>WEEK 24 VISIT (± 2 weeks)</td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
</tr>
<tr>
<td><strong>Lipid Profiles</strong></td>
</tr>
<tr>
<td>PBMCs/Plasma for storage for future Virology studies</td>
</tr>
<tr>
<td><strong>Urinalysis</strong></td>
</tr>
<tr>
<td><strong>M/C Ratio Assay</strong></td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
</tr>
<tr>
<td>------------------------------------</td>
</tr>
</tbody>
</table>
| Population Pharmacokinetics        | 0.5mL EDTA per time point | PKW0291 | Transfer all plasma to one pre-labeled 2 ml cryovial, and freeze immediately after processing at -70°C or colder | BLD/EDT/PL1 LDMS time/unit: ___/RPD | Subjects do not need to be fasted. Send to local IMPAACT processing lab on ice and process within one hour of collection.  
2 blood samples will be collected 2 hours apart between 12 and 26 hours post-dose. |
<table>
<thead>
<tr>
<th>Test Type</th>
<th>Specimen Type</th>
<th>Code</th>
<th>Week 32</th>
<th>Week 40</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR: Abbott Real Time HIV1</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 and F3109</td>
<td>Freeze ≥1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs - Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
</tbody>
</table>
## WEEK 48 VISIT (± 2 weeks)

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Sample Type</th>
<th>tube Code</th>
<th>Prepping</th>
<th>Storage</th>
<th>Delivery Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Lipid Profiles</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab. Non-fasting unless triglycerides are ≥Grade 2 (using DAIDS toxicity table for fasting triglycerides), then complete fasting state lipid profile must be done. Once subject has ≥Grade 2 non-fasting, all future lipid profiles must be fasting.</td>
</tr>
<tr>
<td>PBMCs/Plasma for storage for future Virology studies.</td>
<td>6.5 ml EDTA Blood</td>
<td>F3006</td>
<td>Freeze 3x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5x10⁶ cells/0.5 ml aliquots.</td>
<td>BLD/EDT/PL2 BLD/EDT/CEL/DMS</td>
<td>Send to IMPAACT processing lab ambient.</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>Urine</td>
<td>PE0811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>M/C Ratio Assay</td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at −20°C or colder.</td>
<td>URN/NON/URN</td>
<td></td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
</tbody>
</table>

**Confirm Suspected Virologic Failure**

| HIV-1 RNA PCR Abbott Real Time HIV1 | 3.0mL EDTA Blood | F3006 (and F3109 if results not reported in LDMS) | Freeze ≥ 1 x 1 ml aliquots at −70°C or colder. | BLD/EDT/PL2 | US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab. |
### VIROLOGIC FAILURE

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Sample Type</th>
<th>Volume</th>
<th>Code</th>
<th>Notes</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>PBMCs/Plasma for storage for future studies</strong></td>
<td>6.5 ml EDTA Blood</td>
<td>F3006</td>
<td>Freeze 3x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5x10⁶ cells/0.5 ml aliquots.</td>
<td>BLD/EDT/PL2 BLD/EDT/CEL/DMS</td>
<td>Send to IMPAACT processing lab ambient.</td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td><strong>Genotyping</strong></td>
<td>2.0 m EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>RT, PR and Integrase drug resistance to be tested.</td>
</tr>
<tr>
<td><strong>Phenotyping</strong></td>
<td>2.0mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>To be collected only if sufficient blood volume</td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
<tr>
<td>Dose Adjustment PK Visit</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Intensive Pharmacokinetics</strong> (Either Intensive or Population PK will be performed per protocol.)</td>
<td>0.5mL EDTA per time point</td>
<td>PKW0290</td>
<td>Transfer all plasma to one pre-labeled 2ml cryovial and freeze immediately after processing at -70°C or colder.</td>
<td>BLD/EDT/PL1 Time/timeunit: 0/Pre, X/HR</td>
<td>Subjects must be fasted for 6 hours prior to dosing. Send to local IMPAACT processing lab on ice and process within one hour of collection. NOTE: See LPC footnote #8 for specific requirements for compliance and food and liquid intake on PK day.</td>
</tr>
<tr>
<td><strong>Population Pharmacokinetics</strong></td>
<td>0.5mL EDTA per time point</td>
<td>PKW0291</td>
<td>Transfer all plasma to one pre-labeled 2ml cryovial, and freeze immediately after processing at -70°C or colder</td>
<td>BLD/EDT/PL1 LDMS time/unit: 0/Pre or ___/RPD</td>
<td>Subjects do not need to be fasted. Send to local IMPAACT processing lab on ice and process within one hour of collection. 2 blood samples will be collected: pre-dose and 2-4 hours post dose.</td>
</tr>
<tr>
<td>Test</td>
<td>Collection Type</td>
<td>Rack</td>
<td>Format</td>
<td>Transport</td>
<td>Remarks</td>
</tr>
<tr>
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</tr>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
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<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Genotyping</td>
<td>2.0 mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>RT, PR and Integrase drug resistance to be tested.</td>
</tr>
<tr>
<td>Phenotyping</td>
<td>2.0mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>To be collected only if sufficient blood volume</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
</tbody>
</table>
## Section 5 (Cohorts I, IIA, IIB, III and III-DT - STAGE I): Shipping Information & Addresses

**ACTG / IMPAACT Laboratory Manual, Shipping Information and other useful information:**
http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx

<table>
<thead>
<tr>
<th>US SITES</th>
<th>AFRICA SITES</th>
<th>SOUTH AMERICA SITES</th>
<th>THAILAND SITES</th>
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<tr>
<td><strong>Genotyping (SCREENING)</strong></td>
<td>Ship in real time to LDMS LAB 238</td>
<td>Kenya and Uganda-test at local lab Other site labs-Ship in real time to CLS</td>
<td>Ship in real time to FioCruz</td>
</tr>
<tr>
<td><strong>Genotyping (VIROLOGIC FAILURE or Premature /DC of Study Drug/ On study)</strong></td>
<td>Ship in real time to LDMS LAB 238</td>
<td>Ship in real time to 238 (BRI as Pass Through)</td>
<td>Ship in real time to 238 (BRI as Pass Through)</td>
</tr>
<tr>
<td><strong>PHENOTYPING</strong></td>
<td>Store locally and ship in batches to Monogram when requested</td>
<td>Store locally and ship in batches to Monogram when requested. (BRI as Pass Through).</td>
<td>Store locally and ship in batches to Monogram when requested. (BRI as Pass Through).</td>
</tr>
<tr>
<td><strong>ABBOTT HIV-1 RNA</strong></td>
<td>Ship in real time to local CLIA approved lab</td>
<td>Ship in real time to local VQA approved lab</td>
<td>Ship in real time to local VQA approved lab</td>
</tr>
<tr>
<td><strong>INTENSIVE PK</strong></td>
<td>Ship in real time to UAB</td>
<td>Ship in real time to UAB (BRI as Pass Through).</td>
<td>Ship in real time to UAB (BRI as Pass Through).</td>
</tr>
<tr>
<td><strong>POPULATION PK</strong></td>
<td>Batch ship to UAB every 24 weeks.</td>
<td>Batch ship to UAB every 24 weeks. (BRI as Pass Through).</td>
<td>Batch ship to UAB every 24 weeks. (BRI as Pass Through).</td>
</tr>
<tr>
<td><strong>M/C RATIO</strong></td>
<td>Ship in real time to Quest Diagnostics</td>
<td>Ship in real time to CLS</td>
<td>Ship in real time to Quest Diagnostics</td>
</tr>
</tbody>
</table>
### Section 5 (Cohorts I, IIA, IIB, III and III-DT - STAGE I): Shipping Information & Addresses

**ACTG / IMPAACT Laboratory Manual, Shipping Information and other useful information:**
http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx

<table>
<thead>
<tr>
<th>PBMCs / Plasma for storage</th>
<th>NIAID Sites: Store locally and ship in batches to BRI as directed</th>
<th>NIAID Sites: Store locally and ship in batches to BRI as directed</th>
<th>NIAID Sites: Store locally and ship in batches to BRI as directed</th>
<th>NIAID Sites: Store locally and ship in batches to BRI as directed</th>
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</thead>
<tbody>
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<td>NICHID Sites: Store locally and ship in batches to Fisher as directed</td>
<td>NICHID Sites: Store locally and ship in batches to Fisher as directed</td>
<td>NICHID Sites: Store locally and ship in batches to Fisher as directed</td>
<td>NICHID Sites: Store locally and ship in batches to Fisher as directed</td>
</tr>
<tr>
<td>University of Alabama at Birmingham</td>
<td>Research Institute</td>
<td>CLS Africa</td>
<td>FioCruz, Brazil</td>
<td>PHPT Lab, Thailand</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>-----------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Dr. Edward Acosta Attn: Kedria Walker</td>
<td>Dr. Lisa Frenkel Attn: Dr. Ingrid Beck</td>
<td>Dr. Wendy Stevens Central Laboratory Services</td>
<td>Dr. Marizaa G. Morgado / Deise Luci Rufino dos Santos</td>
<td>Dr. Nicole Ngo-Giang-Huong/ Laddawan Laomanit</td>
</tr>
<tr>
<td>University of Alabama at Birmingham Division of Pharmacology 1670 University Blvd. Volker Hall Rm 270 Birmingham, AL 35294-0019</td>
<td>Seattle Children’s Research Institute - Frenkel Lab 307 Westlake Ave N Seattle WA 98109 USA</td>
<td>Spencer Lister Building 4th Floor, NHLScomplex Cnr De Korte and Hospital Street Braamfontein, Johannesburg, 2000 South Africa</td>
<td>Pavilhao Leonidas Deane, 4th Floor Avenida Brazil, 4365 Manguinhos, RJ 21045-900 Brazil</td>
<td>PHPT Laboratory 548 Chiang Mai-Lamphun Rd Nong Hoi Muang, Chiang Mai 50000 Thailand</td>
</tr>
<tr>
<td>Phone: 205-975-2461 Fax: 205-934-6201 LDMS Lab: 191 <strong>Send a copy of PKWeCRF to the PK testing lab when samples are shipped.</strong></td>
<td>Phone: 206–884-3440 Fax: 206-884-7311 Email: <a href="mailto:Frenkellabshipments@seattlechildrens.org">Frenkellabshipments@seattlechildrens.org</a> LDMS Lab: 238</td>
<td>Phone: 011-27 11 489-9765 Fax: 011-27-11-489-8554 Email: <a href="mailto:wendy.stevens@nhls.ac.za">wendy.stevens@nhls.ac.za</a> LDMS Lab: 350</td>
<td>Phone: 011-55-21-25984583 Fax: 011-55-21-22801589 Email: <a href="mailto:mmorgado@ioc.fiocruz.br">mmorgado@ioc.fiocruz.br</a> Or: <a href="mailto:camposmello@hotmail.com">camposmello@hotmail.com</a> LDMS Lab: 319</td>
<td>Phone: +66-53-894-431 Fax: +66-53-894-220 Email: <a href="mailto:laddawan@phpt.org">laddawan@phpt.org</a> LDMS Lab: 251</td>
</tr>
<tr>
<td>Quest Diagnostics</td>
<td>Siriraj Laboratory, Thailand</td>
<td>BRI Repository</td>
<td>Monogram Biosciences</td>
<td>Fisher Repository (NICHD Sites)</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>---------------------------------------</td>
<td>-------------------------------------</td>
<td>---------------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Quest Diagnostics Incorporated</td>
<td>Attn: Dr. Sathien Sukpanichnant, Asst.</td>
<td>Attn: John C. Ward Biomedical</td>
<td>Attn: Tim Persyn</td>
<td>Fisher Bioservices</td>
</tr>
<tr>
<td>Dr. William Meyer</td>
<td>Professor Siriraj Laboratory</td>
<td>Research Institute (BRI)</td>
<td>Monogram Biosciences</td>
<td>C/o Maria Wolff</td>
</tr>
<tr>
<td>Attn: Denise Bopst- Special Studies</td>
<td>Department of Clinical Pathology</td>
<td>9410 Key West Avenue, First Floor</td>
<td>345 Oyster Point Blvd.</td>
<td>Biological Services Division</td>
</tr>
<tr>
<td>1901 Sulphur Spring Road</td>
<td>Siriraj Hospital, Mahidol University</td>
<td>Rockville, MD 20850</td>
<td>So. San Francisco, CA 94080</td>
<td>625 Lofstrand Lane</td>
</tr>
<tr>
<td>Baltimore MD 21227</td>
<td>2 Prannok Road, Bangkoknoi</td>
<td>Phone (301)881-7636</td>
<td>Phone: 650-624-4271</td>
<td>Rockville, MD 20850</td>
</tr>
<tr>
<td>TEL: 410-536-1713</td>
<td>Bangkok 10700 Thailand</td>
<td>Fax (301)770-9811</td>
<td>Fax: 650-624-4457</td>
<td>Tel: 301-340-1620</td>
</tr>
<tr>
<td>FAX: 410-536-1474</td>
<td></td>
<td>Email: <a href="mailto:brirepository@afbr-bri.com">brirepository@afbr-bri.com</a></td>
<td>Email: <a href="mailto:Persynt@labcorp.com">Persynt@labcorp.com</a></td>
<td>Fax: 301-838-9753</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LDMS Lab: 999</td>
<td></td>
<td>Email: <a href="mailto:Maria.wolff@thermofisher.com">Maria.wolff@thermofisher.com</a></td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td><a href="http://www.fishersci.com">www.fishersci.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
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<td>LDMS Lab: 243</td>
</tr>
</tbody>
</table>

Email: DGXBaltimoreSpecialStudiesDeparment@questdiagnostics.com
LDMS Lab #33

Email: sathiensk@yahoo.com
LDMS Lab: 258

Email: sathiensk@yahoo.com
LDMS Lab: 258

Email: brirepository@afbr-bri.com
LDMS Lab: 999

Email: Persynt@labcorp.com
LDMS Lab: 243

Email: Maria.wolff@thermofisher.com
www.fishersci.com
LDMS Lab: 243
Instructions for BRI ‘Pass-Through’ Specimens
(Additional instructions can be found in Section 6.5 of the MOPs)

This process is to be used ONLY for the following laboratories and specimens:
- Genotyping at VIROLOGIC FAILURE (ALL non-US sites)
- Phenotyping at SCREENING and VIROLOGIC FAILURE (ALL non-US sites)
- Intensive PK assays (ALL non-US Sites)
- Population PK assays (ALL non-US Sites)

When creating the LDMS shipping batch select the appropriate testing laboratory as the shipment destination based on the P1093 LPC:
- Genotyping at VIROLOGIC FAILURE – University of Washington LDMS LAB 238
- Phenotyping – Monogram Biosciences
- Intensive PK assays – UAB - Lab code: 191
- Population PK assays – UAB - Lab code: 191

IMPORTANT: When preparing the LDMS shipment as a ‘pass-through’, DO NOT select lab 999 (BRI) as the destination. BRI is not the final destination for any ‘pass-through’ specimens!

Pack the specimens as you normally would and address the Safety Pack\World Courier Secondary Packaging to the final shipment destination of Lab code: 238 or Monogram or 191 (see above)

Be sure to include the correct “Pass Through” shipping notification inside the box addressed to BRI. The shipping notifications can be found in Appendix II, III and IV of the MOPs.

Be sure to send the LDMS shipping manifest, diskette and any necessary eCRFs to the testing lab.

Place this fully packed and addressed shipment within an appropriate shipper and address the outer box to the BRI repository:
Section 6 (Cohorts I, IIA, III and III-DT - STAGE II)
SCHEDULE OF EVALUATIONS (copied from Appendix IB)

<table>
<thead>
<tr>
<th>Screen¹</th>
<th>Entry¹¹ Day 0</th>
<th>Day 10</th>
<th>Week 4</th>
<th>Week 8</th>
<th>Week 12</th>
<th>Week 16</th>
<th>Week 24</th>
<th>Week 32</th>
<th>Week 40</th>
<th>Week 48</th>
<th>Confirm Suspect Virologic Failure¹²</th>
<th>Virologic failure¹³</th>
<th>Pre-mature DC of Study Drug/On study¹⁴</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit Windows</td>
<td>-</td>
<td>-</td>
<td>±3 days</td>
<td>±1 wk</td>
<td>±1 wk</td>
<td>±1 wk</td>
<td>±2 wks</td>
<td>±2 wks</td>
<td>±2 wks</td>
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<tr>
<td>LABORATORY EVALUATIONS</td>
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</tr>
<tr>
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<tr>
<td>Chemistries⁴</td>
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<td>Lipid profiles⁵</td>
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<td>Urinalysis</td>
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<tr>
<td>Microalbumin/creatinine ratio - urine ⁶</td>
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<td>Pregnancy test ⁷</td>
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<td>X</td>
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<td>Phenotyping ⁸</td>
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</tr>
<tr>
<td>Lymphocyte subsets ⁹</td>
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</tr>
<tr>
<td>STAGE II - Population PK¹⁰</td>
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<td></td>
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<td>1mL</td>
<td>0.5mL</td>
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<tr>
<td>Total Maximum Blood Volumes ¹⁷</td>
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<td>5mL</td>
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<td>14.5 mL</td>
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<td>6mL</td>
<td>13.5 mL</td>
<td>3mL</td>
<td>16.5mL</td>
</tr>
</tbody>
</table>
Appendix IB Footnotes

1. After obtaining Informed Consent, evaluations should be completed within 30 days prior to study entry.

2. History and physical exam (including height, weight, vital signs [temperature, pulse, respirations and blood pressure], occurrence of adverse events since last study visit and HIV-1 associated conditions). Weight should be measured without shoes and with minimal clothing. For female participants 9 years of age and older, menarche status and for participants who have reached menarche; sexual activity and contraceptive use.

3. For information on Tanner assessment, see P1093 MOP.

4. Chemistries will be performed at all visits. Electrolytes (sodium, potassium, and HCO3), glucose, creatinine, lipase, phosphorus, and LFTs. LFTs should include total bilirubin, indirect bilirubin, direct bilirubin, alkaline phosphatase, AST, ALT, and albumin. If indirect bilirubin is not reported by the site laboratory, it should be calculated at the site and documented.

   The following (listed in order of preference) should be used to determine the upper limit of normal (ULN) values for indirect bilirubin.
   a. "ULN" values reported by the laboratory report for the test, or
   b. "ULN" values routinely used/established by the site or
   c. "ULN" values as per the most current Harriet Lane Handbook. (In the 2018 version of the Harriet Lane Handbook, for a full term infant, the ULN for total bilirubin is 1.2 mg/dL (21 µmol/L) and for direct bilirubin is 0.2 mg/dL (3.4 µmol/L); thus the ULN for indirect bilirubin would be 1.0 mg/dL (17.6 µmol/L)).

   Sites must be consistent with the way toxicities are evaluated for all participants in the study; sites should use the same source throughout the study. Remember to have documentation of calculated indirect bilirubin and source of "ULN", when not reported by your laboratory.

5. Lipid Profile (triglycerides, cholesterol, HDL, LDL) will be drawn in a non-fasting state. However, if triglycerides are grade 2 (using DAIDS toxicity table for fasting triglycerides), a complete fasting state lipid profile (triglycerides, cholesterol, HDL, and LDL) must be drawn. Fasting intervals will be overnight or at least 8 hours. After a participant has had a grade 2 triglycerides in non-fasting state, all future triglycerides must be obtained in fasting state.

6. M/C ratio – microalbumin / creatinine ratio

7. Pregnancy test (urine or serum beta hCG) must be performed on all females of reproductive potential within 72 hours prior to enrollment. Subsequent tests should be performed at each visit. If a blood test is performed, collect 1.0mL in a red top serum tube.

8. Phenotyping will occur where there is sufficient blood volume collected. HIV-1 phenotyping will NOT be performed in real time and will NOT be used to determine optimized background therapy (OBT). Specimens should be stored at the local site and shipped in batches when requested by the Protocol Team.

9. Lymphocyte subset blood samples should be collected in EDTA tubes. These samples will be analyzed for CD4 and CD8.

10. Blood samples (0.5mL per sample) will be collected per time point at Weeks 4, 12 and 24. All participants will have 2 blood sample collected at week 4: pre-dose and 2-4 hours post dose. At week 12, 1 blood sample will be collected at any time point post dose. At week 24, 2 blood samples will be collected two hours apart between 12 and
26 hours post-dose. Samples to be batched and shipped as described in the Laboratory Processing Chart (LPC). For sample collection timepoints for the 'Two Weeks Post Switch Visit' and 'Next Scheduled Visit after Post Switch Visit' refer to footnotes 13 and 14 below. For participants on BID dosing refer to the study MOP for sampling time points.

11. Entry must occur within 30 days of screening.

12. If a participant meets a criterion for suspected virologic failure, as defined in Section 6.5, collect a confirmatory HIV-1 RNA PCR sample at least 1 week but not more than 4 weeks from the date of the initial RNA PCR test. If a sample cannot be obtained within weeks, samples should be collected as soon as possible beyond 4 weeks)

13. If a participant is confirmed as having virologic failure as defined, in Section 6.5, conduct a Virologic Failure Visit at least one week and within four weeks.

14. Participants, who discontinue study drug early, should remain on study and follow Appendix IF.

15. A baseline specimen should also be sent with the genotype virologic failure specimen. This specimen may be a baseline (Day 0 entry) storage sample or left-over sample from baseline genotyping (screening). Please refer to the Laboratory Processing Chart (LPC) for additional details.

16. Only if not done at virologic failure.

17. The blood volumes listed are ideal, but may not always be possible due to site-specific regulations or challenges with phlebotomy in certain participants. For insufficient blood draws, priorities are as follows: hematology; chemistry; pharmacokinetic studies; HIV-1 RNA; genotyping; lymphocyte subsets; plasma and PBMCs/plasma for storage; phenotyping; lipid profiles.
**Section 7 (Cohorts I, IIA, III and III-DT - STAGE II): Safety/Clinical Laboratory Evaluations**

*Defer to local clinical specimen collection guidelines for tube types and collection volumes whenever discrepancies occur.*

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>DMC Test Code</th>
<th>Tests</th>
<th>CRF #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>N/A</td>
<td>CBC <em>(to include platelet and differential)</em></td>
<td>PE6811</td>
</tr>
<tr>
<td>Chemistry</td>
<td>N/A</td>
<td>Chemistry-Electrolytes (sodium, potassium, HCO₃, glucose, creatinine, lipase, phosphorus, and LFTs (total bilirubin, indirect bilirubin, direct bilirubin, alkaline phosphatase, AST, ALT, and albumin.)</td>
<td>PE6816</td>
</tr>
<tr>
<td>Lipid Profile</td>
<td>N/A</td>
<td>Lipid profile- triglycerides, cholesterol, HDL, LDL</td>
<td>PE6816</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>N/A</td>
<td>Urinalysis (dipstick only)</td>
<td>PE0811</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>N/A</td>
<td>HCG <em>(pregnancy test)</em> (urine test must have a sensitivity of ≤25mIU/mL)</td>
<td>F0847</td>
</tr>
</tbody>
</table>
### Section 8 (Cohorts I, IIA, III and III-DT - STAGE II): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF # DMC Test Code</th>
<th>Processing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBMCs / plasma for storage (includes integrase resistance sample)</td>
<td>EDTA</td>
<td>Send to IMPAACT processing lab ambient</td>
<td>F3006 STORVIR</td>
<td>Spin blood at 400xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Freeze 3x1 ml aliquots at –70°C or colder. Ficoll and cryopreserve PBMCs per the Cross Network Cryopreservation SOP. Freeze PBMCs viably in 5X10⁶ cells/0.5 ml aliquots.</td>
<td>NIAID sites: Store on site and Ship to BRI as directed. NICHD sites: Store on site and Ship to Fisher as directed.</td>
</tr>
<tr>
<td>M/C Ratio Assay Microalbumin/creatinine ratio (mcg/mg creatinine)</td>
<td>Urine</td>
<td>N/A</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at –20°C or colder. NOTE: Ship on frozen cold packs or dry ice depending on instructions from testing lab.</td>
<td>US sites ship real time to Quest Diagnostics. International sites ship real time as follows: Africa Sites – Contract Lab Services (CLS) Johannesburg, SA South America – Quest Laboratory (33) Thailand – Siriraj Lab, Thailand</td>
</tr>
</tbody>
</table>
### Section 8 (Cohorts I, IIA, III and III-DT - STAGE II): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF # DMC Test Code</th>
<th>Processing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>EDTA</td>
<td>Invert tube 8 to 10 times gently. Send to IMPAACT (NAIAD) or (NICHID) processing lab ambient.</td>
<td>F3006 (and F3109 if results are not reported through LDMS) RNAHIV</td>
<td>Spin blood at 800xg for 10 min. Transfer plasma and re-spin at 800xg for 10min. Freeze 1x 1mL aliquot and any residual plasma in a second aliquot at -70°C, or colder.</td>
<td>US labs—Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Resistance (Genotyping) (SCREENING VISIT) RT/PR drug resistance testing NOT (INT) Integrase</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 GENOHIV</td>
<td>Spin blood at 800xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Save all plasma in one aliquot and freeze at -70°C or colder.</td>
<td>US sites ship real time to LDMS LAB 238. Include UW requisition form found on P1093 Website International sites ship real time as follows: <strong>Kenya and Uganda-Local lab testing</strong> <strong>Other Africa Sites</strong> – Contract Lab Services (CLS) Johannesburg, SA <strong>South America</strong> – Fiocruz, Brazil <strong>Thailand</strong> – PHPT lab, Chiang Mai, Thailand</td>
</tr>
</tbody>
</table>
## Section 8 (Cohorts I, IIA, III and III-DT - STAGE II): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF # DMC Test Code</th>
<th>Processing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance (Genotyping) (VIROLOGIC FAILURE or Premature DC of Study Drug/On Study) RT/PR and INT drug resistance testing</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 GENOHIV</td>
<td>Spin blood at 800xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Save all plasma in one aliquot and freeze at $-70^\circ$C or colder.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>US sites - Ship Real Time to LDMS Lab 238. Include UW requisition form found on P1093 Website.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>All International Sites - Ship real time to LDMS Lab 238 (utilizing BRI as Pass Through). Include UW requisition form found on P1093 Website.</td>
</tr>
<tr>
<td>Resistance (Phenotyping) NOTE: To be collected only if sufficient blood volume</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 PHENOHIV</td>
<td>Spin blood at 800xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Save all plasma in two one aliquot and freeze at $-70^\circ$C or colder.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>US sites store on site and ship to Monogram when requested.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>International sites store on site and ship to BRI when requested. (Final Destination Monogram)</td>
</tr>
<tr>
<td>Lymphocyte subsets-CD3/CD4, CD3/CD8 cell counts and percentages</td>
<td>EDTA</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study</td>
<td>LBW0054 CD4CD8</td>
<td>Dual platform labs only must also have a WBC and diff.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
## Section 8 (Cohorts I, IIA, III and III-DT - STAGE II): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF # DMC Test Code</th>
<th>Processing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population Pharmacokinetics</td>
<td>EDTA</td>
<td>Samples collected at different time points depending on the visit day. Send to local IMPAACT processing lab on ice.</td>
<td>PKW0291 PKPOP</td>
<td>Centrifuge blood within one hour of collection at 1000 x g for 10 minutes at 0-5°C. Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at -70°C or colder.</td>
<td>US sites ship every 24 weeks to UAB. Send a copy of PKW0291 to the PK testing lab when samples are shipped. International sites ship every 24 weeks to BRI as a pass-through (Final Destination UAB). Send a copy of PKW0291 to the PK testing lab when samples are shipped.</td>
</tr>
</tbody>
</table>
### Section 9 (Cohorts I, IIA, III and III-DT - STAGE II): Evaluations by Visit - refer to Section 8 for processing instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Specimen</th>
<th>CRF</th>
<th>Aliquots</th>
<th>LDMS Code</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SCREENING (0/Screen)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Lipid Profiles</td>
<td>1.0ml NON or SST</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab. Non-fasting unless triglycerides are ≥ Grade 2 (using DAIDS toxicity table for fasting triglycerides), then complete fasting state lipid profile must be done. Once subject has ≥ Grade 2 non-fasting, all future lipid profiles must be fasting.</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>Urine</td>
<td>PE0811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs—Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Genotyping</td>
<td>2.0mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>RT/PR drug resistance testing NOT Integrase</td>
</tr>
</tbody>
</table>
## Section 9 (Cohorts I, IIA, III and III-DT - STAGE II): Evaluations by Visit - refer to Section 8 for processing instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Specimen</th>
<th>CRF</th>
<th>Aliquots</th>
<th>LDMS Code</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenotyping</td>
<td>2.0mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at –70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>To be collected only if sufficient blood volume.</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
</tbody>
</table>
## ENTRY (DAY 0)

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Specimen</th>
<th>CRF</th>
<th>Aliquots</th>
<th>LDMS Code</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>PBMCs/Plasma for storage for future Virology studies.</td>
<td>7.0 ml EDTA Blood</td>
<td>F3006</td>
<td>Freeze 3x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5X10⁶ cells/0.5 ml aliquots.</td>
<td>BLD/EDT/PL2 BLD/EDT/CEL/DMS</td>
<td>Send to IMPAACT processing lab ambient.</td>
</tr>
<tr>
<td>M/C Ratio Assay</td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at −20°C or colder.</td>
<td>URN/NON/URN</td>
<td></td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2 US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
<td></td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Specimen</td>
<td>CRF</td>
<td>Aliquots</td>
<td>LDMS Code</td>
<td>Special Notes</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------</td>
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<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0ml EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Specimen</td>
<td>CRF</td>
<td>Aliquots</td>
<td>LDMS Code</td>
<td>Special Notes</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------</td>
<td>---------</td>
<td>----------</td>
<td>-------------</td>
<td>-----------------------------------------------------------------</td>
</tr>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott</td>
<td>3.0mL EDTA Blood</td>
<td>F3006</td>
<td>Freeze ≥1 x 1 ml aliquots at -70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Real Time HIV1</td>
<td></td>
<td>F3109</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population Pharmacokinetics</td>
<td>0.5mL EDTA per time point</td>
<td>PKW0291</td>
<td>Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at -70°C or colder</td>
<td>BLD/EDT/PL1</td>
<td>LDMS time/unit: 0/Pre or ___RPD</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Specimen</td>
<td>CRF</td>
<td>Aliquots</td>
<td>LDMS Code</td>
<td>Special Notes</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------------</td>
<td>---------</td>
<td>----------</td>
<td>-----------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>Urine</td>
<td>PE0811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>M/C Ratio Assay</td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at −20°C or colder.</td>
<td>URN/NON/URN</td>
<td>.</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 mL aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
</tbody>
</table>
### WEEK 12 VISIT (± 1 week)

<table>
<thead>
<tr>
<th>Test Category</th>
<th>Test Type</th>
<th>Volume</th>
<th>Code</th>
<th>Methodology</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.0ml EDTA Blood</td>
<td></td>
<td>PE6811</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
<td></td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.0ml NON or SST Blood</td>
<td></td>
<td>PE6816</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
<td></td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urine</td>
<td></td>
<td>F0847</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
<td></td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR</strong></td>
<td>3.0mL EDTA Blood</td>
<td></td>
<td>F3006</td>
<td>freeze $\geq 1$ x 1 ml aliquots at $-70^\circ C$ or colder.</td>
<td>BLD/EDT/PL2, US labs - Can be performed at any local CLIA certified lab. Non-US labs - Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Abbott Real Time HIV1</td>
<td></td>
<td></td>
<td>F3109</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0mL EDTA Blood</td>
<td></td>
<td>LBW0054</td>
<td></td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Population Pharmacokinetics</strong></td>
<td>0.5mL EDTA</td>
<td></td>
<td>PKW0291</td>
<td>-transfer all plasma to one pre-labeled 2 ml cryovial, and freeze immediately after processing at $-70^\circ C$ or colder.</td>
<td>BLD/EDT/PL1, LDMS time/unit:_____/RPD, Subjects do not need to be fasting. Send to local IMPAACT processing lab on ice and process within one hour of collection. One sample will be collected at any timepoint post-dose.</td>
</tr>
</tbody>
</table>
### WEEK 16 VISIT (± 1 week)

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Specimen</th>
<th>Code</th>
<th>Notes</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
</tr>
</tbody>
</table>
### WEEK 24 VISIT (± 2 weeks)

<table>
<thead>
<tr>
<th>Test</th>
<th>Sample</th>
<th>Code</th>
<th>Code Details</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Lipid Profiles</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>Send to local lab. Non-fasting unless triglycerides are ≥Grade 2 (using DAIDS toxicity table for fasting triglycerides), then complete fasting state lipid profile must be done. Once subject has ≥Grade 2 non-fasting, all future lipid profiles must be fasting.</td>
</tr>
<tr>
<td><strong>PBMCs/Plasma for storage for future Virology studies</strong></td>
<td>6.5 ml EDTA Blood</td>
<td>F3006</td>
<td>Freeze 3x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5X10⁶ cells/0.5 ml aliquots.</td>
<td>BLD/EDT/PL2 BLD/EDT/CYD/PL2 Send to IMPAACT processing lab ambient.</td>
</tr>
<tr>
<td><strong>Urinalysis</strong></td>
<td>Urine</td>
<td>PE0811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>M/C Ratio Assay</strong></td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0ml each. Freeze at −20°C or colder.</td>
<td>URN/NON/URN</td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2 USlabs-Can be performed at any local CLIA certified lab. Non-US-labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS <em>(Not mandatory entry)</em></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------</td>
<td>---------</td>
<td>------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Population Pharmacokinetics</td>
<td>0.5mL EDTA per time point</td>
<td>PKW0291</td>
<td>Transfer all plasma to one pre-labeled 2 ml cryovial, and freeze immediately after processing at -70°C or colder</td>
<td>BLD/EDT/PL1 LDMS time/unit: ____/RPD</td>
</tr>
<tr>
<td></td>
<td>Test Type</td>
<td>Volume</td>
<td>Code</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------</td>
<td>-----------------</td>
<td>------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST</td>
<td>PE6816</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2 US labs—Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
</tr>
<tr>
<td>Test Type</td>
<td>Volume</td>
<td>Reagent Code</td>
<td>Test Code</td>
<td>Comment</td>
</tr>
<tr>
<td>---------------------------------</td>
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</tr>
<tr>
<td><strong>Hematology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.0ml EDTA Blood</td>
<td></td>
<td>PE6811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.0ml NON or SST Blood</td>
<td></td>
<td>PE6816</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Lipid Profiles</strong></td>
<td></td>
<td>PE6816</td>
<td>N/A</td>
<td>Send local lab. Non-fasting unless triglycerides are ≥Grade 2 (using DAIDS toxicity table for fasting triglycerides), then complete fasting state lipid profile must be done. Once subject has ≥Grade 2 non-fasting, all future lipid profiles must be fasting.</td>
</tr>
<tr>
<td>1.0ml NON or SST Blood</td>
<td></td>
<td>PE6816</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>PBMCs/Plasma for storage for future Virology studies.</strong></td>
<td>6.5 ml EDTA Blood</td>
<td>F3006</td>
<td>Freeze 3x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5X10⁶ cells/0.5 ml aliquots.</td>
<td>Send to IMPAACT processing lab ambient.</td>
</tr>
<tr>
<td><strong>Uricalysis</strong></td>
<td></td>
<td></td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Urine</td>
<td></td>
<td>PE0811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>M/C Ratio Assay</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.0 ml Urine</td>
<td></td>
<td>SPW0427</td>
<td></td>
<td>Urine/Non/Urine</td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
<td></td>
<td></td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Urine</td>
<td></td>
<td>F0847</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2 US labs - Can be performed at any local CLIA certified lab. Non-US-labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td></td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Non a mandatory entry)</td>
</tr>
</tbody>
</table>
## Confirm Suspected Virologic Failure

<p>| HIV-1 RNA PCR Abbott Real Time HIV1 | 3.0mL EDTA Blood | F3006 (and F3109 if results not reported in LDMS) | Freeze ≥ 1 x 1 ml aliquots at −70°C or colder. | BLD/EDT/PL2 | USlabs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab. |</p>
<table>
<thead>
<tr>
<th>Test Description</th>
<th>Sample Type</th>
<th>Code</th>
<th>Storage &amp; Handling Instructions</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>PBMCs/Plasma for storage for future studies</strong></td>
<td>6.5 ml EDTA Blood</td>
<td>F3006</td>
<td>Freeze 3x1 ml aliquots plasma at –70°C or colder. Freeze PBMCs viably in 5x10^6 cells/0.5 ml aliquots.</td>
<td>Send to IMPAACT processing lab ambient.</td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006</td>
<td>Freeze ≥ 1 x 1 ml aliquots at –70°C or colder.</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td><strong>Genotyping</strong></td>
<td>2.0 m EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at –70°C or colder.</td>
<td>BLD/EDT/PL2 RT, PR and Integrase drug resistance to be tested.</td>
</tr>
<tr>
<td><strong>Phenotyping</strong></td>
<td>2.0mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at –70°C or colder.</td>
<td>BLD/EDT/PL2 To be collected only if sufficient blood volume</td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry) Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
<tr>
<td>Test Type</td>
<td>Required Blood Type</td>
<td>Collection Code</td>
<td>Handling</td>
<td>Storage</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------</td>
<td>-----------------</td>
<td>----------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
</tr>
<tr>
<td><strong>Genotyping</strong></td>
<td>2.0 m EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
</tr>
<tr>
<td><strong>Phenotyping</strong></td>
<td>2.0mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS <em>(Not a mandatory entry)</em></td>
</tr>
</tbody>
</table>
### Section 10 (Cohorts I, IIA, III and III-DT - STAGE II): Shipping Information & Addresses

ACTG / IMPAACT Laboratory Manual, Shipping Information and other useful information: [http://www.hanc.info/labs/labresources/Pages/informationActgimpaactLabs.aspx](http://www.hanc.info/labs/labresources/Pages/informationActgimpaactLabs.aspx)

<table>
<thead>
<tr>
<th></th>
<th>US SITES</th>
<th>AFRICA SITES</th>
<th>SOUTH AMERICA SITES</th>
<th>THAILAND SITES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Genotyping</strong></td>
<td><strong>US SITES</strong></td>
<td><strong>AFRICA SITES</strong></td>
<td><strong>SOUTH AMERICA SITES</strong></td>
<td><strong>THAILAND SITES</strong></td>
</tr>
<tr>
<td>(SCREENING)</td>
<td>Ship in real time to LDMS LAB 238</td>
<td>Kenya and Uganda-test at local lab</td>
<td>Ship in real time to FioCruz</td>
<td>Ship in real time to PHPT LAB.</td>
</tr>
<tr>
<td></td>
<td><strong>AFRICA SITES</strong></td>
<td>Other site labs-Ship in real time to CLS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>SOUTH AMERICA SITES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>THAILAND SITES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genotyping (VIROLOGIC FAILURE or Premature /DC of Study Drug/ On study)</td>
<td>Ship in real time to LDMS LAB 238</td>
<td>Ship in real time to 238 (BRI as Pass Through)</td>
<td>Ship in real time to 238 (BRI as Pass Through)</td>
<td>Ship in real time to 238 (BRI as Pass Through)</td>
</tr>
<tr>
<td>Phenotyping</td>
<td>Store locally and ship in batches to Monogram when requested</td>
<td>Store locally and ship in batches to Monogram when requested (BRI as Pass Through)</td>
<td>Store locally and ship in batches to Monogram when requested (BRI as Pass Through)</td>
<td>Store locally and ship in batches to Monogram when requested (BRI as Pass Through)</td>
</tr>
<tr>
<td>ABBOTT HIV-1 RNA</td>
<td>Ship in real time to local CLIA approved lab</td>
<td>Ship in real time to local VQA approved lab</td>
<td>Ship in real time to local VQA approved lab</td>
<td>Ship in real time to local VQA approved lab</td>
</tr>
<tr>
<td>INTENSIVE PK</td>
<td>Ship in real time to UAB</td>
<td>Ship in real time to UAB (BRI as Pass Through).</td>
<td>Ship in real time to UAB (BRI as Pass Through).</td>
<td>Ship in real time to UAB (BRI as Pass Through).</td>
</tr>
<tr>
<td>M/C RATIO</td>
<td>Ship in real time to Quest Diagnostics</td>
<td>Ship in real time to CLS</td>
<td>Ship in real time to Quest Diagnostics Lab (33)</td>
<td>Ship in real time to Siriraj Lab.</td>
</tr>
<tr>
<td>University of Alabama at Birmingham</td>
<td>Research Institute</td>
<td>CLS Africa</td>
<td>FioCruz, Brazil</td>
<td>PHPT Lab, Thailand</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>------------------</td>
<td>------------</td>
<td>----------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Dr. Edward Acosta Attn: Kedria Walker</td>
<td>Dr. Lisa Frenkel Attn: Dr. Ingrid Beck</td>
<td>Dr. Wendy Stevens</td>
<td>Dr. Mariza G. Morgado / Deise Luci Rufinodos Santo Pavilhao Leonidas Deane, 4th Floor</td>
<td>Dr. Nicole Ngo-Giang-Huong / Laddawan Laomanit</td>
</tr>
<tr>
<td>University of Alabama at Birmingham</td>
<td>Seattle Children’s Research Institute – Frenkel Lab</td>
<td>Central Laboratory Services</td>
<td>Avenida Brazil, 4365</td>
<td>PHPT Laboratory</td>
</tr>
<tr>
<td>1670 University Blvd. Volker Hall Rm 270 Birmingham, AL 35294-0019</td>
<td>307 Westlake Ave N Seattle WA 98109 USA</td>
<td>Spencer Lister Building 4th Floor, NHLS complex</td>
<td>Manguinhos, RJ 21045-900 Brazil</td>
<td>548 Chiang Mai-Lamphun Rd</td>
</tr>
<tr>
<td>Phone: 205-975-2461 Fax: 205-934-6201</td>
<td>Phone: 206-884-3440 Fax: 206-884-7311</td>
<td>Email: <a href="mailto:Frenkellabshipments@seattlechildrens.org">Frenkellabshipments@seattlechildrens.org</a></td>
<td>Phone: 011-55-21-25984583</td>
<td>Phone: +66-53-894-431</td>
</tr>
<tr>
<td>LDMS Lab: 191</td>
<td>LDMS Lab: 238</td>
<td>Email: <a href="mailto:wendy.stevens@nhls.ac.za">wendy.stevens@nhls.ac.za</a></td>
<td>Fax: 011-55-21-22801589</td>
<td>Fax: +66-53-894-220</td>
</tr>
<tr>
<td><strong>Send a copy of PKW form to the PK testing lab when samples are shipped.</strong></td>
<td>LDMS Lab: 350</td>
<td>Email: <a href="mailto:mmorgado@ioc.fiocruz.br">mmorgado@ioc.fiocruz.br</a></td>
<td>Email: <a href="mailto:laddawan@phpt.org">laddawan@phpt.org</a></td>
<td></td>
</tr>
<tr>
<td><strong>Send a copy of PKW form to the PK testing lab when samples are shipped.</strong></td>
<td><strong>S</strong>end a copy of PKW form to the PK testing lab when samples are shipped.**</td>
<td>Or: <a href="mailto:camposmello@hotmail.com">camposmello@hotmail.com</a></td>
<td></td>
<td><strong>LDMS Lab: 319</strong></td>
</tr>
<tr>
<td><strong>LDMS Lab: 319</strong></td>
<td><strong>LDMS Lab: 350</strong></td>
<td><strong>LDMS Lab: 319</strong></td>
<td><strong>LDMS Lab: 251</strong></td>
<td><strong>LDMS Lab: 251</strong></td>
</tr>
</tbody>
</table>
## Section 10 (Cohorts I, IIA, III and III-DT - STAGE II): Shipping Information & Addresses

**ACTG / IMPAACT Laboratory Manual, Shipping Information and other useful information:**
http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx

<table>
<thead>
<tr>
<th><strong>Quest Diagnostics</strong></th>
<th><strong>Siriraj Laboratory, Thailand</strong></th>
<th><strong>BRI Repository</strong></th>
<th><strong>Monogram Biosciences</strong></th>
<th><strong>Fisher Repository (NICHD Sites)</strong></th>
</tr>
</thead>
</table>
| Quest Diagnostics Incorporated  
Dr. William Meyer  
Attn: Denise Bopst - Special Studies  
1901 Sulphur Spring Road  
Baltimore MD 21227  
TEL: 410-536-1713  
FAX: 410-536-1474  
Email: DGXBaltimoreSpecialStudiesDepartment@questdiagnostics.com  
LDMS Lab #33 | Siriraj Laboratory  
Attn: Dr. Sathien Sukpanichnant, Asst. Professor  
Siriraj Laboratory  
Department of Clinical Pathology  
Siriraj Hospital, Mahidol University  
2 Prannok Road, Bangkokeno  
Bangkok 10700  
Thailand  
Phone: +6624196590  
Email: sathiensk@yahoo.com  
LDMS Lab: 258 | BRI Repository  
Attn: John C. Ward  
Biomedical Research Institute (BRI)  
9410 Key West Avenue, First Floor  
Rockville, MD 20850  
Phone (301)881-7636  
Fax (301)770-9811  
Email: brirepository@afbr-bri.com  
LDMS Lab: 999 | Monogram Biosciences  
Attn: Tim Persyn  
Monogram Biosciences  
345 Oyster Point Blvd.  
So. San Francisco, CA 94080  
Phone: 650-624-4271  
Fax: 650-624-4457  
Email: Persynt@labcorp.com | Fisher Bioservices  
C/o Maria Wolff  
Biological Services Division  
625 Lofstrand Lane  
Rockville, MD 20850  
Tel: 301-340-1620  
Fax: 301-838-9753  
Email: Maria.wolff@thermofisher.com  
http://www.fishersci.com/  
LDMS Lab: 243 |
Section 10 (Cohorts I, IIA, III and III-DT - STAGE II): Shipping Information & Addresses

**ACTG / IMPAACT Laboratory Manual, Shipping Information and other useful information:**
http://www.hanc.info/labs/labresources/Pages/informationActgimpaactLabs.aspx

Instructions for BRI ‘Pass-Through’ Specimens
(Additional instructions can be found in Section 6.5 of the MOPs)

This process is to be used ONLY for the following laboratories and specimens:
- Genotyping at VIROLOGIC FAILURE (ALL non-US sites)
- Phenotyping at SCREENING and VIROLOGIC FAILURE (ALL non-US sites)
- Intensive PK assays (ALL non-US Sites)
- Population PK assays (ALL non-US Sites)

When creating the LDMS shipping batch select the appropriate testing laboratory as the shipment destination based on the P1093 LPC:
- Genotyping at VIROLOGIC FAILURE – University of Washington LDMS LAB 238
- Phenotyping – Monogram Biosciences
- Intensive PK assays – UAB - Lab code: 191
- Population PK assays – UAB - Lab code: 191

**IMPORTANT:** When preparing the LDMS shipment as a ‘pass-through’, DO NOT select lab 999 (BRI) as the destination. BRI is not the final destination for any ‘pass-through’ specimens!

Pack the specimens as you normally would and address the Safety Pack/World Courier Secondary Packaging to the final shipment destination of Lab code: 238 or 191 (see above)

Be sure to include the correct “Pass Through” shipping notification inside the box addressed to BRI. The shipping notifications can be found in Appendix II, III and IV of the MOPs.

Be sure to send the LDMS shipping manifest, diskette and any necessary CRFs to the testing lab.

a. Place this fully packed and addressed shipment within a box and address the outer box to the BRI repository:
Section 11: Cohorts IV, IV-DT, and V-DT–STAGE I
Copied from APPENDIX IC - SCHEDULE OF EVALUATIONS

<table>
<thead>
<tr>
<th></th>
<th>Screen</th>
<th>Entry</th>
<th>Intensive PK: Day 5-10</th>
<th>Week 4</th>
<th>Week 8</th>
<th>Week 12</th>
<th>Week 16</th>
<th>Week 24</th>
<th>Week 32</th>
<th>Week 40</th>
<th>Week 48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit Windows</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>±1 wk</td>
<td>±1 wk</td>
<td>±1 wk</td>
<td>±1 wk</td>
<td>±2 wk</td>
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<td>±2 wk</td>
<td>±2 wk</td>
</tr>
</tbody>
</table>

**LABORATORY EVALUATIONS**

<p>| | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>0.5mL</td>
<td>0.5mL</td>
<td>0.5mL</td>
<td>0.5mL</td>
<td>0.5mL</td>
<td>0.5mL</td>
<td>0.5mL</td>
<td>0.5mL</td>
<td>0.5mL</td>
<td>0.5mL</td>
<td>0.5mL</td>
</tr>
<tr>
<td>Chemistries</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
</tr>
<tr>
<td>Lipid profiles</td>
<td>1mL</td>
<td></td>
<td></td>
<td></td>
<td>1mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PBMCs / plasma for</td>
<td>5mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>storage (includes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.5mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>integrase resistance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.5mL</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Uronalysis</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microalbumin/creatinineratio-urine³</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Virology**

| HIV-1 RNA PCR         | 3mL    | 3mL   | 3mL                   | 3mL    | 3mL    | 3mL     | 3mL     | 3mL     | 3mL     | 3mL     | 3mL     |
| Genotyping            | 2mL    |       |                       |        |        |         |         |         |         |         |         |
| Phenotyping           | 2mL    |       |                       |        |        |         |         |         |         |         |         |

**Immunology**

| Lymphocyte subsets⁷   | 1mL    | 1mL   |                       | 1mL    | 1mL    | 1mL     | 1mL     | 1mL     | 1mL     | 1mL     | 1mL     |

**Pharmacokinetic studies**

| STAGE I – Intensive PK³ | 4mL    |       |                       |        |        |         |         |         |         |         |         |
| STAGE I – Population PK⁹ | 1mL    | 0.5mL |                       | 1mL    | 1mL    |         |         |         |         |         |         |
| Total Maximum Blood Volumes¹⁸ | 10.5mL | 10.5mL| 8.5mL                 | 5.5mL  | 4.5mL  | 6.0mL   | 4.5mL   | 12mL    | 5.5mL   | 5.5mL   | 11mL    |
Cohorts IV, IV-DT, and V-DT–Stage I (cont’d)
Virologic Failure, Dose Adjustment and Premature/DC of Study Drug Visits
Copied from Appendix IC Schedule of Evaluations (cont’d)

<table>
<thead>
<tr>
<th>Visit Windows</th>
<th>Confirm Suspected virologic failure(^{11})</th>
<th>Virologic Failure(^{12})</th>
<th>[Dose Adjustment PK Visit](^{13})</th>
<th>[Dose Adjustment Safety Visit](^{14})</th>
<th>Premature/DC of Study Drug On study(^{15})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>If requested, 5 to 14 days after initiation of the dose adjustment</td>
<td>4 weeks post dose modification (-1 wk/+ 2 wk)</td>
<td>-</td>
</tr>
</tbody>
</table>

**LABORATORY EVALUATIONS**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hematology</td>
<td>0.5mL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chemistries (^{3})</td>
<td>1mL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lipid profiles (^{4})</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PBMCs/plasma for storage (includes integrase resistance sample)</td>
<td>4.5mL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urinalysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Microalbumin/creatinine ratio - urine(^{5})</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Virology**

|                      | HIV-1 RNA PCR                                  | 3mL                       | 3mL                                           | 3mL                                           |
|                      | Genotyping                                    | 2mL\(^{16}\)              |                                               | 2mL\(^{16,17}\)                              |
|                      | Phenotyping \(^{6}\)                          | 2mL                       |                                               | 2mL\(^{17}\)                                 |

**Immunology**

|                      | Lymphocyte subsets \(^{7}\)                  | 1mL                       |                                               |                                               |

**Pharmacokinetic studies**

|                      | STAGE I - Intensive PK \(^{8}\)              | [4mL]                     |                                               |                                               |
|                      | STAGE I - Population PK \(^{9}\)            | [0.5 – 1mL]               |                                               |                                               |
|                      | Total Maximum Blood Volumes\(^{18}\)       | 3mL                       | 14mL                                          | 9.5mL                                         |
Appendix IC – Footnotes

1. After obtaining Informed Consent, evaluations should be completed within 30 days prior to study entry.

2. History and physical exam (including height, weight, vital signs [temperature, pulse, respirations and blood pressure], occurrence of adverse events since last study visit and HIV-1 associated conditions). Weight should be measured without shoes and with minimal clothing.

3. Electrolytes (sodium, potassium, and HCO₃), glucose, creatinine, lipase, phosphorus, and LFTs. LFTs should include total bilirubin, indirect bilirubin, direct bilirubin, alkaline phosphatase, AST, ALT, and albumin. If indirect bilirubin is not reported by the site laboratory, it should be calculated at the site and documented.

The following (listed in order of preference) should be used to determine the upper limit of normal (ULN) values for indirect bilirubin.

a. "ULN" values reported by the laboratory report for the test, or
b. "ULN" values routinely used/established by the site or

• "ULN" values as per the most current Harriet Lane Handbook. (In the 2018 version of the Harriet Lane Handbook, for a full-term infant, the ULN for total bilirubin is 1.2 mg/dL (21 µmol/L) and for direct bilirubin is 0.2 mg/dL (3.4 µmol/L); thus the ULN for indirect bilirubin would be 1.0 mg/dL (17.6 µmol/L)).

Sites must be consistent with the way toxicities are evaluated for all participants in the study; sites should use the same source throughout the study. Remember to have documentation of calculated indirect bilirubin and source of "ULN", when not reported by your laboratory.

4. Lipid Profile (triglycerides, cholesterol, HDL, LDL) will be drawn in a non-fasting state. However, if triglycerides are grade 2 (using DAIDS toxicity table for fasting triglycerides), a complete fasting state lipid profile (triglycerides, cholesterol, HDL, and LDL) must be drawn. Fasting intervals will be overnight or at least 8 hours. After a participant has had a grade 2 triglycerides in non-fasting state, all future triglycerides must be obtained in fasting state.

5. M/C ratio – microalbumin / creatinine ratio

6. Phenotyping will occur where there is sufficient blood volume collected. HIV-1 phenotyping will NOT be performed in real time and will NOT be used to determine optimized background therapy (OBT). Specimens should be stored at the local site and shipped in batches when requested by the Protocol Team.

7. Lymphocyte subset blood samples should be collected in EDTA tubes. These samples will be analyzed for CD4 and CD8.

8. Refer to Section 9.2 for additional instructions around intensive PK sampling.

The pharmacokinetic evaluation should be scheduled so that witnessed dosing of DTG is as close as possible to 24 hours (generally 22-26 hours) after the previous dosing. Participants should have been compliant in taking their medications for 3 days prior to the intensive PK visit; otherwise the intensive PK visit should be re-scheduled.

Intensive PK should be done in a fasted state following the guidelines below and Section 9.2.1.1, unless instructed otherwise by the Protocol Team.

- Participants should not ingest breastmilk, formula or any other high fat food/liquid) for 2 hours prior to and 1 hour after dosing on the intensive PK day.
- Water and other fluids (i.e. apple/orange juice and oral rehydration solution) can be taken at any time.
- Participants may consume a light meal of their choice four hours after dosing on the intensive PK day.
For participants who vomit within 4 hours after dosing; PK must be cancelled and may be rescheduled. Blood samples (0.5mL per sample) will be collected at the following timepoints: pre-dose, 1, 2, 3, 4, 6, 8 and 24 hours postdosing. The 24-hour sample must be collected prior to the next dose. To allow for some flexibility, the 8-hour sample can be collected within a window of 7-9 hours post-dose and the 24-hour sample with a window of 22-26 hours. US sites will ship intensive PK samples in real-time to UAB; all non-US sites will ship PK samples in real-time to BRI repository for a ‘pass-through’ (see Laboratory Processing Chart (LPC)).

9. Blood samples (0.5mL per sample) will be collected per time point at Weeks 4, 12 and 24. All participants will have 2 blood samples collected at week 4: pre-dose and 2-4 hours post-dose. At week 12, 1 blood sample will be collected at any time point post-dose. At week 24, 2 blood samples will be collected two hours apart between 12 and 26 hours post-dose. Samples to be batched and shipped as described in the LPC. For sample collection timepoints for the ‘Two Weeks Post Switch Visit’ and ‘Next Scheduled Visit after Post Switch Visit’ refer to footnotes 13 and 14 below. For participants on BID dosing refer to the study MOP for sampling time points.

10. Entry must occur within 30 days of screening

11. If a participant meets a criterion for suspected virologic failure, as defined in Section 6.5, collect a confirmatory HIV-1 RNA PCR sample at least 1 week but not more than 4 weeks from the date of specimen collection of the initial RNA PCR test. If a sample cannot be obtained within weeks, samples should be collected as soon as possible beyond 4 weeks.

12. If a participant is confirmed as having virologic failure, as defined in Section 6.5, conduct a Virologic Failure Visit at least one week later, and within four weeks.

13. Per Section 6.4, participants who underwent a dose modification and for whom additional PK sampling (intensive or population sampling) was requested by the Protocol Team, collect intensive or population PK samples (per Protocol Team request only) 5 – 14 days after initiation of the DTG dose adjustment. (If this visit is scheduled to occur during another scheduled visit a combined visit can be done and procedures do not need to be duplicated.)

14. Per Section 6.4, for participants who underwent a dose modification, as requested by the Protocol Team, a safety visit should be done 4 weeks (-1 wk/+2 wks) after initiation of the DTG dose adjustment. (If this visit is scheduled to occur during another scheduled visit a combined visit can be done and procedures do not need to be duplicated.)

15. Participants, who discontinue study drug early, should remain on study and follow Appendix IF.

16. A baseline specimen should also be sent with the genotype virologic failure specimen. This specimen may be a baseline (Day 0 entry) storage sample or left over sample from baseline genotyping (screening). Please refer to the Laboratory Processing Chart (LPC) for additional details.

17. Only if not done at virologic failure.

18. The blood volumes listed are ideal, but may not always be possible due to site-specific regulations or challenges with phlebotomy in certain participants. For insufficient blood draws, priorities are as follows: hematology; chemistry; pharmacokinetic studies; HIV-1 RNA; genotyping; lymphocyte subsets; plasma and PBMCs/plasma for storage; phenotyping; lipid profiles.
## Section 12 (Cohorts IV, IV-DT, and V-DT– STAGE I): Safety/Clinical Laboratory Evaluations

*Defer to local clinical specimen collection guidelines for tube types and collection volumes whenever discrepancies occur.*

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>DMC Test Code</th>
<th>Tests</th>
<th>CRF #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>N/A</td>
<td>CBC (to include platelet and differential)</td>
<td>PE6811</td>
</tr>
<tr>
<td>Chemistry</td>
<td>N/A</td>
<td>Chemistry-Electrolytes (sodium, potassium, HCO₃⁻, glucose, creatinine, lipase, phosphorus, and LFTs (total bilirubin, indirect bilirubin, direct bilirubin, alkaline phosphatase, AST, ALT, and albumin.)</td>
<td>PE6816</td>
</tr>
<tr>
<td>Lipid Profile</td>
<td>N/A</td>
<td>Lipid profile- triglycerides, cholesterol, HDL, LDL</td>
<td>PE6816</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>N/A</td>
<td>Urinalysis (dipstick only)</td>
<td>PE0811</td>
</tr>
</tbody>
</table>
### Section 13 (Cohorts IV, IV-DT, and V-DT– STAGE I): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF # DMC Test Code</th>
<th>Processing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBMCs/Plasma for repository storage for future studies</td>
<td>EDTA</td>
<td>Send to IMPAACT processing lab ambient</td>
<td>F3006 STORVIR</td>
<td>Spin blood at 400xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Freeze 2x1 ml aliquots at −70°C or colder. Ficoll and cryopreserve PBMCs per the Cross Network Cryopreservation SOP. Freeze PBMCs viably in 5×10^6 cells/0.5 ml aliquots.</td>
<td>NIAID sites: Store on site and Ship to BRI as directed. NICHD sites: Store on site and Ship to Fisher as directed.</td>
</tr>
<tr>
<td>M/C Ratio Assay Microalbumin/creatinine ratio (mcg/mg creatinine)</td>
<td>Urine</td>
<td>N/A</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at −20°C or colder. NOTE: Ship on frozen cold packs or dry ice depending on instructions from testing lab.</td>
<td>US sites ship real time to Quest Diagnostics. International sites ship real time as follows: Africa Sites – Contract Lab Services (CLS) Johannesburg, SA South America – Quest Laboratory (33) Thailand – Siriraj Lab, Thailand</td>
</tr>
</tbody>
</table>
### Section 13 (Cohorts IV, IV-DT, and V-DT– STAGE I): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF # DMC Test Code</th>
<th>Processing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>EDTA</td>
<td>Invert tube 8 to 10 times gently. Send to IMPAACT (NIAID) or (NICH) processing lab ambient.</td>
<td>F3006 (and F3109 if results are not reported through LDMS) RNAHIV</td>
<td>Spin blood at 800xg for 10 min. Transfer plasma and re-spin at 800xg for 10 min. Freeze 1x 1mL aliquot and any residual plasma in a second aliquot at -70°C, or colder.</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US-labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Resistance (Genotyping) (SCREENING VISIT) RT/PR drug resistance testing NOT (INT) Integrase</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 GENOHIV</td>
<td>Spin blood at 800xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Save all plasma in one aliquot and freeze at -70°C or colder.</td>
<td>US sites ship real time to LDMS LAB 238. Include UW requisition form found on P1093 Website International sites ship real time as follows: <strong>Kenya and Uganda-Local lab testing</strong> <strong>Other Africa Sites</strong> – Contract Lab Services (CLS) Johannesburg, SA <strong>South America</strong> – Fiocruz, Brazil <strong>Thailand</strong> – PHPT lab, Chiang Mai, Thailand</td>
</tr>
</tbody>
</table>
Section 13 (Cohorts IV, IV-DT, and V-DT– STAGE I): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF # DMC Test Code</th>
<th>Processing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance (Genotyping) (VIROLOGIC FAILURE or Premature DC of Study Drug/On Study) RT/PR and INT drug resistance testing</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 GENOHIV</td>
<td>Spin blood at 800xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Save all plasma in one aliquot and freeze at −70°C or colder. NOTE: If Screening Resistance Genotyping not performed at Lab 238, a residual aliquot from screening is requested in addition in shipment with VF specimen.</td>
<td>US sites - Ship Real Time to LDMS LAB 238. Include UW requisition form found on P1093 Website. All International Sites - Ship real time to LDMS Lab 238 (utilizing BRI as Pass Through). Include UW requisition form found on P1093 Website.</td>
</tr>
<tr>
<td>Resistance Phenotyping</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 PHENOHIV</td>
<td>Spin blood at 800xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>US sites store on site and ship to Monogram when requested. International sites store on site and ship to BRI when requested. (Final Destination Monogram)</td>
</tr>
<tr>
<td>Lymphocyte subsets-CD3/CD4, CD3/CD8 cell counts and percentages</td>
<td>EDTA</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study</td>
<td>LBW0054 CD4CD8</td>
<td>Dual platform labs only must also have a WBC and diff.</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Tube Type</td>
<td>Special Collection Notes</td>
<td>CRF # DMC Test Code</td>
<td>Processing</td>
<td>Shipping</td>
</tr>
<tr>
<td>--------------------------------</td>
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<td>-------------------------------------------------------------------------------------------</td>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Intensive Pharmacokinetics</td>
<td>EDTA</td>
<td>Subjects must be fasted for 4 hours prior to dosing (see Section I footnote #8 for additional info.) Time points: Pre-dose, 1, 2, 3, 4, 6, 8 and 24 hours post dosing. Send to local IMPAACT processing lab on ice.</td>
<td>PKW0290 PKINT</td>
<td>Centrifuge blood within one hour of collection at 1000 x g for 10 minutes at 0-5°C. Transfer all plasma to one pre-labeled 2 ml cryovial, and freeze immediately after processing at -70°C or colder.</td>
<td>US sites ship to UAB real time. Send a copy of PKW0290 to the PK testing lab when samples are shipped.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>International sites ship to BRI real time as Pass Through. (Final Destination UAB). Send a copy of PKW0290 to the PK testing lab when samples are shipped.</td>
</tr>
<tr>
<td>Population Pharmacokinetics</td>
<td>EDTA</td>
<td>Samples collected at different time points depending on the visit day.</td>
<td>PKW0291 PKPOP</td>
<td>Centrifuge blood within one hour of collection at 1000 x g for 10 minutes at 0-5°C. Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at -70°C or colder.</td>
<td>US sites ship every 24 weeks to UAB. Send a copy of PKW0291 to the PK testing lab when samples are shipped.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>International sites ship every 24 weeks to BRI as a pass-through. (Final Destination UAB). Send a copy of PKW0291 to the PK testing lab when samples are shipped.</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Specimen</td>
<td>CRF</td>
<td>Aliquots</td>
<td>LDMS Code</td>
<td>Special Notes</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------------</td>
<td>--------</td>
<td>----------</td>
<td>-----------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SCREENING (0/Screen)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hematology</td>
<td>0.5-0.9ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Lipid Profiles</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab. Non-fasting unless triglycerides are ≥ Grade 2 (using DAIDS toxicity table for fasting triglycerides), then complete fasting state lipid profile must be done. Once subject has ≥ Grade 2 non-fasting, all future lipid profiles must be fasting.</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>Urine</td>
<td>PE0811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(and F3109 if results not reported in LDMS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genotyping</td>
<td>2.0 mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>RT/PR drug resistance testing NOT Integrase</td>
</tr>
<tr>
<td>Phenotyping</td>
<td>2.0mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>To be collected only if sufficient blood volume</td>
</tr>
</tbody>
</table>
### Section 14 (Cohorts IV, IV-DT, and V-DT– STAGE I): Evaluations by Visit - refer to Section 13 for processing instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Specimen</th>
<th>CRF</th>
<th>Aliquots</th>
<th>LDMS Code</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS <em>(Not a mandatory entry)</em></td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
<tr>
<td>ENTRY (DAY 0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hematology</strong> 0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
<td></td>
</tr>
<tr>
<td><strong>Chemistry</strong> 1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
<td></td>
</tr>
<tr>
<td><strong>PBMCs/Plasma for storage for future Virology studies</strong> 5.0 ml EDTA Blood</td>
<td>F3006</td>
<td>Freeze 2x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5X10⁶ cells/0.5 ml aliquots.</td>
<td>BLD/EDT/PL2 BLD/EDT/CEL/DMS</td>
<td>Send to IMPAACT processing lab ambient.</td>
<td></td>
</tr>
<tr>
<td><strong>M/C Ratio Assay</strong> 4.0 ml Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at −20°C or colder.</td>
<td>URN/NON/URN</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong> 3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
<td></td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong> 1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
<td></td>
</tr>
</tbody>
</table>
# INTENSIVE PK VISIT – DAY 5-10

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Sample Type</th>
<th>Ref. No.</th>
<th>Result Type</th>
<th>Procedure</th>
<th>Lab Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0ml EDTA Blood</td>
<td>F3006</td>
<td>N/A</td>
<td>Freeze ≥ 1 x 1 ml aliquots at -70°C or colder.</td>
<td>BLD/EDT/PL2 US labs - Can be performed at any local CLIA certified lab. Non-US-labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td></td>
<td>HIV-1 Abbott Real Time</td>
<td>F3109</td>
<td>N/A</td>
<td>Freeze ≥ 1 x 1 ml aliquots at -70°C or colder.</td>
<td>BLD/EDT/PL2 US labs - Can be performed at any local CLIA certified lab. Non-US-labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Intensive Pharmacokinetics</td>
<td>0.5ml EDTA per timepoint</td>
<td>PKW0290</td>
<td>N/A</td>
<td>Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at -70°C or colder.</td>
<td>BLD/EDT/PL1 LDMS time/time unit: 0/Pre, X/HR Subjects must be fasted for 6 hours prior to dosing. Send to local IMPAACT processing lab on ice and process within one hour of collection. NOTE: See LPC footnote #8 for specific requirements for compliance and food and liquid intake on PK day. Samples will be collected at the following timepoints: pre-dose, 1,2,3,4,6,8 and 24 hours post-dosing.</td>
</tr>
</tbody>
</table>
## WEEK 4 VISIT (±1 week)

<table>
<thead>
<tr>
<th>Test</th>
<th>Volume</th>
<th>Container</th>
<th>Code</th>
<th>Storage</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs - Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td><strong>Population Pharmacokinetics</strong></td>
<td>0.5ml EDTA Blood per timepoint</td>
<td>PKW0291</td>
<td>Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at −70°C or colder</td>
<td>BLD/EDT/PL1</td>
<td>LDMS time/unit: 0/Pre or ___/RPD</td>
</tr>
</tbody>
</table>
## WEEK 8 VISIT (± 1 week)

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Sample Type</th>
<th>Test Code</th>
<th>Code Notes</th>
<th>Storage Instructions</th>
<th>Result Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>0.5+0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>Urine</td>
<td>PE0811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>M/C Ratio Assay</td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0ml each.</td>
<td>Freeze at −20°C or colder.</td>
<td>URN/NON/URN</td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
</tbody>
</table>
### WEEK 12 VISIT (± 1 week)

<table>
<thead>
<tr>
<th>Test Category</th>
<th>Sample Type</th>
<th>Code</th>
<th>Notes</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>0.5-1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at -70°C or colder.</td>
<td><strong>US labs</strong>: Can be performed at any local CLIA certified lab. Non-US labs must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
</tr>
<tr>
<td>Population Pharmacokinetics</td>
<td>0.5ml EDTA Blood</td>
<td>PKW0291</td>
<td>Transfer all plasma to one pre-labeled 2 ml cryovial, and freeze immediately after processing at -70°C or colder</td>
<td>BLD/EDT/PL1 LDMS time/unit: ___/RPD</td>
</tr>
<tr>
<td>WEEK 16 VISIT (± 1 week)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
</tr>
<tr>
<td>Test Type</td>
<td>Sample Type</td>
<td>Code</td>
<td>Handling/Storage</td>
<td>Notes</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------</td>
<td>--------</td>
<td>------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Hematology</td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Lipid Profiles</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>Send to local lab. Non-fasting unless triglycerides are ≥Grade 2 (using DAIDS toxicity table for fasting triglycerides), then complete fasting state lipid profile must be done. Once subject has ≥Grade 2 non-fasting, all future lipid profiles must be fasting.</td>
</tr>
<tr>
<td>PBMCs/Plasma for storage for future Virology studies</td>
<td>4.5 ml EDTA Blood</td>
<td>F3006</td>
<td>Freeze 2x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5X10⁶ cells/0.5 ml aliquots.</td>
<td>BLD/EDT/PL2 BLD/EDT/CEL/DMS Send to IMPAACT processing lab ambient.</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>Urine</td>
<td>PE0811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>M/C Ratio Assay</td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at −20°C or colder.</td>
<td>URN/NON/URN</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2 US labs-Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS <em>(Not a mandatory entry)</em></td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------</td>
<td>---------</td>
<td>------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Population Pharmacokinetics</td>
<td>0.5mL EDTA Blood per time point</td>
<td>PKW0291</td>
<td>Transfer all plasma to one pre-labeled 2ml cryovial, and freeze immediately after processing at -70°C or colder</td>
<td>BLD/EDT/PL1 LDMS time/unit: ____/RPD</td>
</tr>
<tr>
<td>WEEK 32 VISIT (± 2 weeks)</td>
<td>WEEK 40 VISIT (± 2 weeks)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
</tr>
<tr>
<td>Test Category</td>
<td>Sample Type</td>
<td>Tube Code</td>
<td>Amount</td>
<td>Storage &amp; Handling</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------------------</td>
<td>-----------</td>
<td>--------</td>
<td>--------------------</td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Lipid Profiles</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>PBMCs/Plasma for storage for future Virology studies.</strong></td>
<td>4.5 ml EDTA Blood</td>
<td>F3006</td>
<td>Freeze 2x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5X10⁶ cells/0.5 ml aliquots.</td>
<td>BLD/EDT/PL2 BLD/EDT/CEL/DMS</td>
</tr>
<tr>
<td><strong>Urinalysis</strong></td>
<td>Urine</td>
<td>PE0811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>M/C Ratio Assay</strong></td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at −20°C or colder.</td>
<td>URN/NON/URN</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
<tr>
<td>Confirm Suspected Virologic Failure</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>-----------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
</tr>
</tbody>
</table>
# VIROLOGIC FAILURE

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Volume</th>
<th>Tube Type</th>
<th>Code</th>
<th>Notes</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
<td>0.5 ml</td>
<td>EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0 ml</td>
<td>NON or SST</td>
<td>PE6816</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>PBMCs/Plasma for storage for future studies</strong></td>
<td>4.5 ml</td>
<td>EDTA Blood</td>
<td>F3006</td>
<td>Freeze 2x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5x10^6 cells/0.5 ml aliquots.</td>
<td>Send to IMPAACT processing lab ambient.</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
<td>3.0 mL</td>
<td>EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs - Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td><strong>Genotyping</strong></td>
<td>2.0 m</td>
<td>EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>RT, PR and Integrase drug resistance to be tested.</td>
</tr>
<tr>
<td><strong>Phenotyping</strong></td>
<td>2.0 mL</td>
<td>EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>To be collected only if sufficient blood volume</td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0 mL</td>
<td>EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
</tbody>
</table>

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| Dose Adjustment PK Visit (If requested, 5 to 14 days after initiation of the dose adjustment) |
|-----------------------------------------------|-----------------|-----------------|-----------------|
| Intensive Pharmacokinetics (either Intensive or Population PK to be collected) | 0.5ml EDTA per timepoint | PKW0290 | Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at -70°C or colder. | BLD/EDT/PL1 LDMS time/unit: 0/Pre, X/HR | Subjects must be fasted for 6 hours prior to dosing. Send to local IMPAACT processing lab on ice and process within one hour of collection. NOTE: See LPC footnote #8 for specific requirements for compliance and food and liquid intake on PK day. Samples will be collected at the following time points: pre-dose, 1, 2, 3, 4, 6, 8 and 24 hours post-dosing. |
| Population Pharmacokinetics | 0.5ml EDTA Blood per time point | PKW0291 | Transfer all plasma to one pre-labeled 2 ml cryovial, and freeze immediately after processing at -70°C or colder | BLD/EDT/PL1 LDMS time/unit: 0/Pre or _/RPD | Subjects do not need to be fasted. Send to local IMPAACT processing lab on ice and process within one hour of collection. 2 blood samples will be collected pre-dose and 2-4 hours post-dose. |

**Dose Adjustment PK Visit- No Lab specimens collected**
## Premature DC of Study Drug/On Study

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Sample Type</th>
<th>Code</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
</tr>
<tr>
<td><strong>Abbott Real Time HIV1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Genotyping</strong></td>
<td>2.0 m EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
</tr>
<tr>
<td><strong>Phenotyping</strong></td>
<td>2.0mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 15 Cohorts IV, IV-DT, and V-DT– STAGE I Shipping Information & Addresses

ACTG / IMPAACT Laboratory Manual, Shipping Information and other useful information:  
http://www.hanc.info/labs/labresources/Pages/informationActgImpaaclab.aspx

<table>
<thead>
<tr>
<th></th>
<th>US SITES</th>
<th>AFRICA SITES</th>
<th>SOUTH AMERICA SITES</th>
<th>THAILAND SITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genotyping (SCREENING)</td>
<td>Ship in real time to LDMS LAB 238</td>
<td>Kenya and Uganda-test at local lab</td>
<td>Ship in real time to FioCruz</td>
<td>Ship in real time to PHPT LAB.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other site labs-Ship in real time to CLS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genotyping (VIROLOGIC FAILURE or Premature /DC of Study Drug/ On study)</td>
<td>Ship in real time to LDMS LAB 238</td>
<td>Ship in real time to 238 (BRI as Pass Through)</td>
<td>Ship in real time to 238 (BRI as Pass Through)</td>
<td>Ship in real time to 238 (BRI as Pass Through)</td>
</tr>
<tr>
<td>PHENOTYPING</td>
<td>Store locally and ship in batches to Monogram when requested</td>
<td>Store locally and ship in batches to Monogram when requested. (BRI as Pass Through)</td>
<td>Store locally and ship in batches to Monogram when requested. (BRI as Pass Through)</td>
<td>Store locally and ship in batches to Monogram when requested. (BRI as Pass Through).</td>
</tr>
<tr>
<td>ABBOTT HIV-1 RNA</td>
<td>Ship in real time to local CLIA approved lab</td>
<td>Ship in real time to local VQA approved lab</td>
<td>Ship in real time to local VQA approved lab</td>
<td>Ship in real time to local VQA approved lab</td>
</tr>
<tr>
<td>INTENSIVE PK</td>
<td>Ship in real time to UAB (BRI as Pass Through)</td>
<td>Ship in real time to UAB (BRI as Pass Through)</td>
<td>Ship in real time to UAB (BRI as Pass Through)</td>
<td>Ship in real time to UAB (BRI as Pass Through).</td>
</tr>
<tr>
<td>POPULATION PK</td>
<td>Batch ship to UAB every 24 weeks. (BRI as Pass Through)</td>
<td>Batch ship to UAB every 24 weeks. (BRI as Pass Through)</td>
<td>Batch ship to UAB every 24 weeks. (BRI as Pass Through)</td>
<td>Batch ship to UAB every 24 weeks. (BRI as Pass Through).</td>
</tr>
<tr>
<td>M/C RATIO</td>
<td>Ship in real time to Quest Diagnostics</td>
<td>Ship in real time to CLS</td>
<td>Ship in real time to Quest Diagnostics Lab (33)</td>
<td>Ship in real time to Siriraj Lab.</td>
</tr>
<tr>
<td>Section 15 Cohorts IV, IV-DT, and V-DT– STAGE I Shipping Information &amp; Addresses</td>
<td></td>
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</tr>
<tr>
<td><strong>ACTG / IMPAACT Laboratory Manual, Shipping Information and other useful information:</strong>&lt;br&gt;<a href="http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx">http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PBMCs / Plasma for storage</strong></td>
<td><strong>Research Institute</strong></td>
<td><strong>CLS Africa</strong></td>
<td><strong>FioCruz, Brazil</strong></td>
<td><strong>PHPT Lab, Thailand</strong></td>
</tr>
<tr>
<td></td>
<td>NIAID Sites: Store locally and ship in batches to BRI as directed&lt;br&gt;NICHD Sites: Store locally and ship in batches to Fisher as directed</td>
<td>NIAID Sites: Store locally and ship in batches to BRI as directed&lt;br&gt;NICHD Sites: Store locally and ship in batches to Fisher as directed</td>
<td>NIAID Sites: Store locally and ship in batches to BRI as directed&lt;br&gt;NICHD Sites: Store locally and ship in batches to Fisher as directed</td>
<td></td>
</tr>
<tr>
<td><strong>University of Alabama at Birmingham</strong>&lt;br&gt;Dr. Edward Acosta&lt;br&gt;Attn: Kedria Walker&lt;br&gt;University of Alabama at Birmingham&lt;br&gt;Division of Pharmacology&lt;br&gt;1670 University Blvd.&lt;br&gt;Volkert Hall Rm 270&lt;br&gt;Birmingham, AL 35294-0019&lt;br&gt;Phone: 205-975-2461&lt;br&gt;Fax: 205-934-6201&lt;br&gt;LDMS Lab: 191&lt;br&gt;<strong>Send a copy of PKW form to the PK testing lab when samples are shipped.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Research Institute</strong></td>
<td>Dr. Lisa Frenkel&lt;br&gt;Attn: Dr. Ingrid Beck&lt;br&gt;Seattle Children’s Research Institute – Frenkel Lab&lt;br&gt;307 Westlake Ave N&lt;br&gt;Seattle WA 98109&lt;br&gt;USA&lt;br&gt;Phone: 206–884-3440&lt;br&gt;Fax: 206-884-7311&lt;br&gt;Email: <a href="mailto:Frenkellabshipments@seattlechildrens.org">Frenkellabshipments@seattlechildrens.org</a>&lt;br&gt;LDMS Lab: 238</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>University of Alabama at Birmingham</strong></td>
<td>Dr. Wendy Stevens&lt;br&gt;Central Laboratory Services&lt;br&gt;Spencer Lister Building&lt;br&gt;4th Floor, NHLS complex&lt;br&gt;Cnr De Korte and Hospital Street&lt;br&gt;Braamfontein, Johannesburg, 2000&lt;br&gt;South Africa&lt;br&gt;Phone: 011-27 11 489-9765&lt;br&gt;Fax: 011-27-11-489-8554&lt;br&gt;Email: <a href="mailto:wendy.stevens@nhls.ac.za">wendy.stevens@nhls.ac.za</a>&lt;br&gt;LDMS Lab: 350</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>University of Alabama at Birmingham</strong></td>
<td>Dr. Mariza G. Morgado&lt;br&gt;Deise Luci Rufino dos Santos&lt;br&gt;Pavilhao Leonidas Deane, 4th Floor&lt;br&gt;Avenida Brazil, 4365&lt;br&gt;Manguinhos, RJ 21045-900&lt;br&gt;Brazil&lt;br&gt;Phone: 011-55-21-25984583&lt;br&gt;Fax: 011-55-21-22801589&lt;br&gt;Email: <a href="mailto:mmorgado@ioc.fiocruz.br">mmorgado@ioc.fiocruz.br</a>&lt;br&gt;Or: <a href="mailto:camposmello@hotmail.com">camposmello@hotmail.com</a>&lt;br&gt;LDMS Lab: 319</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>University of Alabama at Birmingham</strong></td>
<td>Dr. Nicole Ngo-Giang-Huong&lt;br&gt;Laddawan Laomanit&lt;br&gt;PHPT Laboratory&lt;br&gt;548 Chiang Mai-Lamphun Rd&lt;br&gt;Nong Hoi Muang, Chiang Mai 50000&lt;br&gt;Thailand&lt;br&gt;Phone: +66-53-894-431&lt;br&gt;Fax: +66-53-894-220&lt;br&gt;Email: <a href="mailto:laddawan@phpt.org">laddawan@phpt.org</a>&lt;br&gt;LDMS Lab: 251</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Section 15 Cohorts IV, IV-DT, and V-DT– STAGE I Shipping Information & Addresses

**ACTG / IMPAACT Laboratory Manual, Shipping Information and other useful information:**
http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx

<table>
<thead>
<tr>
<th>Quest Diagnostics</th>
<th>Siriraj Laboratory, Thailand</th>
<th>BRI Repository</th>
<th>Monogram Biosciences</th>
<th>Fisher Repository (NICHD Sites)</th>
</tr>
</thead>
</table>
| Quest Diagnostics Incorporated  
Dr. William Meyer  
Attn: Denise Bobst-Special Studies  
1901 Sulphur Spring Road  
Baltimore MD 21227  
TEL: 410-536-1713  
FAX: 410-536-1474  
Email: DGXBaltimoreSpecialStudiesDepartment@questdiagnostics.com  
LDMS Lab #33 | Attn: Dr. Sathien Sukpanichnant, Asst. Professor  
Sriraj Laboratory  
Department of Clinical Pathology  
Sriraj Hospital, Mahidol University  
2 Prannok Road, Bangkoknoi  
Bangkok 10700  
Thailand  
Phone: +6624196590  
Email: sathiensk@yahoo.com  
LDMS Lab: 258 | Attn: John C. Ward  
Biomedical Research Institute (BRI)  
9410 Key West Avenue, First Floor  
Rockville, MD 20850  
Phone (301)881-7636  
Fax (301)770-9811  
Email: brirepository@afbr-bri.com  
LDMS Lab: 999 | Attn: Tim Persyn  
Monogram Biosciences  
345 Oyster Point Blvd.  
So. San Francisco, CA 94080  
Phone: 650-624-4271  
Fax: 650-624-4457  
Email: Persynt@labcorp.com | Fisher Bioservices  
C/o Maria Wolff  
Biological Services Division  
625 Lofstrand Lane  
Rockville, MD 20850  
Tel: 301-340-1620  
Fax: 301-838-9753  
Email: Maria.wolff@thermofisher.com  
http://www.fishersci.com/  
LDMS Lab: 243 |
### Section 15 Cohorts IV, IV-DT, and V-DT– STAGE I Shipping Information & Addresses

**ACTG / IMPAACT Laboratory Manual, Shipping Information and other useful information:**
http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx

**Instructions for BRI ‘Pass-Through’ Specimens**
(Additional instructions can be found in Section 6.5 of the MOPs)

- Genotyping at VIROLOGIC FAILURE (ALL non-US sites)
- Phenotyping at SCREENING and VIROLOGIC FAILURE (ALL non-US sites)
- Intensive PK assays (ALL non-US Sites)
- Population PK assays (ALL non-US Sites)

When creating the LDMS shipping batch select the appropriate testing laboratory as the shipment destination based on the P1093 LPC:

- Genotyping at VIROLOGIC FAILURE – University of Washington LDMS LAB 238
- Phenotyping – Monogram Biosciences
- Intensive PK assays – UAB - Lab code: 191
- Population PK assays – UAB - Lab code: 191

**IMPORTANT:** When preparing the LDMS shipment as a ‘pass-through’, DO NOT select lab 999 (BRI) as the destination. BRI is not the final destination for any ‘pass-through’ specimens!

Pack the specimens as you normally would and address the Safety Pack\World Courier Secondary Packaging to the final shipment destination of Lab code: 238, 33 or 191 (see above)

Be sure to include the correct “Pass Through” shipping notification inside the box addressed to BRI. The shipping notifications can be found in Appendix II, III and IV of the MOPs.

Be sure to send the LDMS shipping manifest, diskette and any necessary CRFs to the testing lab.

Place this fully packed and addressed shipment within a box and address the outer box to the BRI repository:
## Section 16: APPENDIX ID - SCHEDULE OF EVALUATIONS

Cohorts IV, IV-DT, and V-DT – STAGE II

### Appendix ID Schedule of Evaluations

Cohorts IV, IV-DT, and V-DT – Stage II

<table>
<thead>
<tr>
<th>Visit Windows</th>
<th>Screen</th>
<th>Entry</th>
<th>Day 0</th>
<th>Week 4</th>
<th>Week 8</th>
<th>Week 12</th>
<th>Week 16</th>
<th>Week 24</th>
<th>Week 32</th>
<th>Week 40</th>
<th>Week 48</th>
<th>Confirm Suspected Virologic Failure</th>
<th>Virologic failure</th>
<th>Premature DC of Study Drug/ On study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>±3 days</td>
<td>±1wk</td>
<td>±1wk</td>
<td>±1wk</td>
<td>±2wk</td>
<td>±2wk</td>
<td>±2wk</td>
<td>±2wk</td>
<td>±2wk</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### CLINICAL EVALUATIONS

- Informed Consent: X
- History and Physical exam: X
- Adherence Questionnaire: X
- CDC Classification: X
- Palatability Assessment: X

### LABORATORY EVALUATIONS

- Hematology: 0.5mL 0.5mL 0.5mL 0.5mL 0.5mL 0.5mL 0.5mL 0.5mL 0.5mL 0.5mL 0.5mL 0.5mL
- Chemistries: 1mL 1mL 1mL 1mL 1mL 1mL 1mL 1mL 1mL 1mL 1mL 1mL
- Lipid profiles: 1mL
- PBMCs / plasma for storage (Includes integrase resistance): 5mL 4.5mL 4.5mL 4.5mL
- Urinalysis: X X X X
- Microalbumin/creatinine ratio assay - urine: X X X X
- Virology:
  - HIV-1 RNA PCR: 3mL 3mL 3mL 3mL 3mL 3mL 3mL 3mL 3mL 3mL 3mL 3mL
  - Genotyping: 2mL
  - Phenotyping: 2mL
- Immunology:
  - Lymphocyte subsets: 1mL 1mL 1mL 1mL 1mL 1mL 1mL 1mL 1mL 1mL 1mL 1mL
- Pharmacokinetic studies:
  - STAGE II Population PK: 1mL 0.5mL 1mL

### Total Maximum Blood Volumes:

- 10.5mL 10.5mL 4.5mL 5.5mL 4.5mL 6mL 4.5mL 12mL 5.5mL 5.5mL 11mL 3mL 14mL 9.5mL
Appendix ID – Footnotes

1. After obtaining Informed Consent, evaluations should be completed within 30 days prior to study entry.

2. History and physical exam (including height, weight, vital signs [temperature, pulse, respirations and blood pressure], occurrence of adverse events since last study visit and HIV-1 associated conditions). Weight should be measured without shoes and with minimal clothing.

3. Blood Chemistries will be performed at all visits. Electrolytes (sodium, potassium, and HCO₃⁻), glucose, creatinine, lipase, phosphorus, and LFTs. LFTs should include total bilirubin, indirect bilirubin, direct bilirubin, alkaline phosphatase, AST, ALT, and albumin. If indirect bilirubin is not reported by the site laboratory, it should be calculated at the site and documented. The following (listed in order of preference) should be used to determine the upper limit of normal (ULN) values for indirect bilirubin.
   a. "ULN" values reported by the laboratory report for the test, or
   b. "ULN" values routinely used/established by the site or
   c. "ULN" values as per the most current Harriet Lane Handbook. (In the 2018 version of the Harriet Lane Handbook, for a full term infant, the ULN for total bilirubin is 1.2 mg/dL (21 µmol/L) and for direct bilirubin is 0.2 mg/dL (3.4 µmol/L); thus the ULN for indirect bilirubin would be 1.0 mg/dL (17.6 µmol/L)).

Sites must be consistent with the way toxicities are evaluated for all participants in the study; sites should use the same source throughout the study. Remember to have documentation of calculated indirect bilirubin and source of "ULN", when not reported by your laboratory.

4. Lipid Profile (triglycerides, cholesterol, HDL, LDL) will be drawn in a non-fasting state. However, if triglycerides are grade 2 (using DAIDS toxicity table for fasting triglycerides), a complete fasting state lipid profile (triglycerides, cholesterol, HDL, and LDL) must be drawn. Fasting intervals will be overnight or at least 8 hours. After a participant has had a grade 2 triglycerides in non-fasting state, all future triglycerides must be obtained in fasting state.

5. M/C ratio – microalbumin / creatinine ratio

6. Phenotyping will occur where there is sufficient blood volume collected. HIV-1 phenotyping will NOT be performed in real time and will NOT be used to determine optimized background therapy (OBT). Specimens should be stored at the local site and shipped in batches when requested by the Protocol Team.

7. Lymphocyte subset blood samples should be collected in EDTA tubes. These samples will be analyzed for CD4 and CD8.

8. Blood samples (0.5mL per sample) will be collected per time point at Weeks 4, 12 and 24. All participants will have 2 blood samples collected at week 4: pre-dose and 2-4 hours post dose. At week 12, 1 blood samples will be collected at any time point post dose. At week 24, 2 blood samples will be collected two hours apart between 12 and 26 hours post-dose. Samples to be batched and shipped as described in the LPC. For sample collection timepoints for the ‘Two Weeks Post Switch Visit’ and ‘Next Scheduled Visit after Post Switch Visit’ refer to footnotes 11 and 12 below. For participants on BID dosing refer to the study MOP for sampling time points.

9. Entry must occur within 30 days of screening.
10. If a participant meets a criterion for suspected virologic failure, as defined in Section 6.5, collect a confirmatory HIV-1 RNA PCR sample at least 1 week but not more than 4 weeks from the date of specimen collection of the initial RNA PCR test. If a sample cannot be obtained within weeks, samples should be collected as soon as possible beyond 4 weeks).

11. If a participant is confirmed as having virologic failure, as defined in Section 6.5, conduct a Virologic Failure Visit at least one week later, and within four weeks.

12. Participants, who discontinue study drug early, should remain on study and follow Appendix IF.

13. A baseline specimen should also be sent with the genotype virologic failure specimen. This specimen may be a baseline (Day 0 entry) storage sample or left over sample from baseline genotyping (screening). Please refer to the LPC for additional details.

14. Only if not done at virologic failure.

15. The blood volumes listed are ideal, but may not always be possible due to site-specific regulations or challenges with phlebotomy in certain participants. For insufficient blood draws, priorities are as follows: hematology; chemistry; pharmacokinetic studies; HIV-1 RNA; genotyping; lymphocyte subsets; plasma and PBMCs/plasma for storage; phenotyping; lipid profiles
### Section 17 (Cohorts IV, IV-DT, and V-DT – STAGE II): Safety/Clinical Laboratory Evaluations

*Defer to local clinical specimen collection guidelines for tube types and collection volumes whenever discrepancies occur.*

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>DMC Test Code</th>
<th>Tests</th>
<th>CRF #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>N/A</td>
<td>CBC (to include platelet and differential)</td>
<td>PE6811</td>
</tr>
<tr>
<td>Chemistry</td>
<td>N/A</td>
<td>Chemistry-Electrolytes (sodium, potassium, HCO$_3^-$, glucose, creatinine, lipase, phosphorus, and LFTs (total bilirubin, indirect bilirubin, direct bilirubin, alkaline phosphatase, AST, ALT, and albumin.)</td>
<td>PE6816</td>
</tr>
<tr>
<td>Lipid Profile</td>
<td>N/A</td>
<td>Lipid profile- triglycerides, cholesterol, HDL, LDL</td>
<td>PE6816</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>N/A</td>
<td>Urinalysis (dipstick only)</td>
<td>PE0811</td>
</tr>
<tr>
<td>Section 18 (Cohorts IV, IV-DT, and V-DT – STAGE II): Specimen Processing &amp; Shipping Instructions</td>
<td></td>
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<tr>
<td>---------------------------------------------------------------</td>
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</tr>
<tr>
<td><strong>Evaluation</strong></td>
<td><strong>Tube Type</strong></td>
<td><strong>Special Collection Notes</strong></td>
<td><strong>CRF # DMC Test Code</strong></td>
</tr>
<tr>
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<td>------------------------</td>
</tr>
<tr>
<td>PBMCs/Plasma for repository storage for future studies</td>
<td>EDTA</td>
<td>Send to IMPAACT processing lab ambient</td>
<td>F3006 STORVIR</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>M/C Ratio Assay</td>
<td>Urine</td>
<td>N/A</td>
<td>SPW0427</td>
</tr>
<tr>
<td>Microalbumin/creatinine ratio (mcg/mg creatinine)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>EDTA</td>
<td>Invert tube 8 to 10 times gently. Send to IMPAACT (NIAID) or (NICHD) processing lab ambient.</td>
<td>F3006 (and F3109 if results are not reported through LDMS) RNAHIV</td>
</tr>
</tbody>
</table>
## Section 18 (Cohorts IV, IV-DT, and V-DT – STAGE II): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF # DMC Test Code</th>
<th>Processing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance (Genotyping) (SCREENING VISIT) RT/PR drug resistance testing</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 GENOHIV</td>
<td>Spin blood at 800xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Save all plasma in one aliquot and freeze at –70°C or colder.</td>
<td>US sites ship real time to LDMS LAB 238. Include UW requisition form found on P1093 Website</td>
</tr>
<tr>
<td>NOT (INT) Integrase</td>
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<td></td>
<td>International sites ship real time as follows:</td>
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<tr>
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<td></td>
<td></td>
<td><strong>Kenya and Uganda</strong> - Local lab testing</td>
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<td><strong>Other Africa Sites</strong> – Contract Lab Services (CLS) Johannesburg, SA</td>
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<td></td>
<td><strong>South America</strong> – Fiocruz, Brazil</td>
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<td><strong>Thailand</strong> – PHPT lab, Chiang Mai, Thailand</td>
<td></td>
</tr>
<tr>
<td>Resistance (Genotyping) (VIROLOGIC FAILURE or Premature DCof Study Drug/On Study) RT/PR and INT drug resistance testing</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 GENOHIV</td>
<td>Spin blood at 800xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Save all plasma in one aliquot and freeze at –70°C or colder.</td>
<td>US sites - Ship Real Time to LDMS LAB 238. Include UW requisition form found on P1093 Website.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NOTE: If Screening Resistance Genotyping not performed at Lab 238, a residual aliquot from screening is requested in addition in shipment with VF specimen.</td>
<td>All International Sites - Ship real time to LDMS Lab 238 (utilizing BRI as Pass Through). Include UW requisition form found on P1093 Website.</td>
</tr>
</tbody>
</table>
### Section 18 (Cohorts IV, IV-DT, and V-DT – STAGE II): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF #</th>
<th>Processing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance (Phenotyping)</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006</td>
<td>Spin blood at 800xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Save all plasma in one aliquot and freeze at –70°C or colder.</td>
<td>US sites store on site and ship to Monogram when requested. International sites store on site and ship to BRI when requested. (Final Destination Monogram)</td>
</tr>
<tr>
<td>Lymphocyte subsets- CD3/CD4, CD3/CD8 cell counts and percentages</td>
<td>EDTA</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study</td>
<td>LBW0054 CD4CD8</td>
<td>Dual platform labs only must also have a WBC and diff.</td>
<td>N/A</td>
</tr>
<tr>
<td>Population Pharmacokinetics</td>
<td>EDTA</td>
<td>Samples collected at different time points depending on the visit day. Send to local IMPAACT processing lab on ice.</td>
<td>PKW0291 PKPOP</td>
<td>Centrifuge blood within one hour of collection at 1000 x g for 10 minutes at 0-5°C. Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at -70°C or colder.</td>
<td>US sites ship every 24 weeks to UAB. Send a copy of PKW0291 to the PK testing lab when samples are shipped. International sites ship every 24 weeks to BRI as a pass-through (Final Destination UAB). Send a copy of PKW0291 to the PK testing lab when samples are shipped.</td>
</tr>
</tbody>
</table>
### Section 19 (Cohorts IV, IV-DT, and V-DT – STAGE II): Evaluations by Visit - refer to Section 18 for processing instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Specimen</th>
<th>CRF</th>
<th>Aliquots</th>
<th>LDMS Code</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Lipid Profiles</td>
<td>1.0ml NON or SST</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab. Non-fasting unless triglycerides are ≥Grade 2 (using DAIDS toxicity table for fasting triglycerides), then complete fasting state lipid profile must be done. Once subject has ≥Grade 2 non-fasting, all future lipid profiles must be fasting.</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>Urine</td>
<td>PE0811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006</td>
<td>Freeze ≥1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US-labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Genotyping</td>
<td>2.0 mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>RT/PR drug resistance testing NOT Integrase</td>
</tr>
<tr>
<td>Phenotyping</td>
<td>2.0mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>To be collected only if sufficient blood volume</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
</tbody>
</table>
## ENTRY (DAY 0)
(Must occur within 30 days of Screening)

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Volume</th>
<th>Specimen Type</th>
<th>Protocol Code</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>0.5ml</td>
<td>EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml</td>
<td>NON or SST</td>
<td>PE6816</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blood</td>
<td></td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>PBMCs/Plasma for storage for future Virology studies</td>
<td>5.0ml</td>
<td>EDTA Blood</td>
<td>F3006</td>
<td>Freeze 2x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5X10^6 cells/0.5 ml aliquots.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BLD/EDT/PL2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Send to IMPAACT processing lab ambient.</td>
</tr>
<tr>
<td>M/C Ratio Assay</td>
<td>4.0ml</td>
<td>Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at −20°C or colder.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>URN/NON/URN</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL</td>
<td>EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
</tr>
<tr>
<td>Abbott Real Time HIV1</td>
<td></td>
<td></td>
<td></td>
<td>BLD/EDT/PL2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>US labs- Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL</td>
<td>EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
</tr>
</tbody>
</table>
## DAY 10 (±3 days)

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Collection</th>
<th>PE Code</th>
<th>Result Code</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at –70°C or colder.</td>
<td>BLD/EDT/PL2 US labs - Can be performed at any local CLIA certified lab. Non-US labs - Must be performed at VQA approved lab.</td>
</tr>
</tbody>
</table>
### WEEK 4 VISIT (±1 week)

<table>
<thead>
<tr>
<th>Category</th>
<th>Sample Type</th>
<th>Code</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST</td>
<td>PE6816</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Blood</td>
<td></td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
</tr>
<tr>
<td>Abbott Real Time HIV1</td>
<td></td>
<td>(and</td>
<td>BLD/EDT/PL2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F3109</td>
<td>Non-US-labs: Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>if</td>
<td>US-labs: Can be performed at any local CLIA certified lab.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>results not reported in LDMS)</td>
<td></td>
</tr>
<tr>
<td>Population Pharmacokinetics</td>
<td>0.5mL EDTA per time point</td>
<td>PKW0291</td>
<td>Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at -70°C or colder</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BLD/EDT/PL1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LDMS time/unit: 0/Pre or ____/RPD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Subjects do not need to be fasted. Send to local IMPAACT processing lab on ice and process within one hour of collection.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 blood samples will be collected at pre-dose and 2-4 hours post-dose</td>
</tr>
<tr>
<td>Test</td>
<td>Volume/Container</td>
<td>PE/UPC</td>
<td>Notes</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------</td>
<td>----------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Hematology</td>
<td>0.5–1.0 ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0 ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>Urine</td>
<td>PE0811</td>
<td>N/A</td>
</tr>
<tr>
<td>M/C Ratio Assay</td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0 ml each. Freeze at –20°C or colder.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>3.0 mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at –70°C or colder.</td>
</tr>
<tr>
<td>Test Category</td>
<td>Type</td>
<td>Code</td>
<td>Addendum</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-----------------</td>
<td>--------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Hematology</td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3109</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
</tr>
<tr>
<td>Population Pharmacokinetics</td>
<td>0.5mL EDTA</td>
<td>PKW0291</td>
<td>Transfer all plasma to one pre-labeled 2 ml cryovial, and freeze immediately after processing at -70°C or colder</td>
</tr>
</tbody>
</table>
## WEEK 16 VISIT (± 1 week)

<table>
<thead>
<tr>
<th>Test</th>
<th>Volume</th>
<th>Type</th>
<th>Notes</th>
<th>Storage</th>
<th>Lab Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>0.5-1.0 ml EDTA</td>
<td>Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0 ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0 mL EDTA</td>
<td>Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at –70°C or colder.</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
</tbody>
</table>
### WEEK 24 VISIT (± 2 weeks)

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Sample Type</th>
<th>Code</th>
<th>Procedure</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
<td>0.5ml EDTA Blood</td>
<td>PE811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE816</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Lipid Profiles</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE816</td>
<td>N/A</td>
<td>Send to local lab. Non-fasting unless triglycerides are ≥ Grade 2 (using DAIDS toxicity table for fasting triglycerides), then complete fasting state lipid profile must be done. Once subject has ≥ Grade 2 non-fasting, all future lipid profiles must be fasting.</td>
</tr>
<tr>
<td><strong>PBMCs/Plasma for storage for future Virology studies</strong></td>
<td>4.5 ml EDTA Blood</td>
<td>F3006</td>
<td>Freeze 2x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5X10^6 cells/0.5 ml aliquots.</td>
<td>BLD/EDT/PL2 US labs - Can be performed at any local CLIA certified lab. Non-US labs - Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td><strong>Urinalysis</strong></td>
<td>Urine</td>
<td>PE811</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>M/C Ratio Assay</strong></td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0 mL each. Freeze at −20°C or colder.</td>
<td>URN/NON/URN</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2 US labs - Can be performed at any local CLIA certified lab. Non-US labs - Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>Population Pharmacokinetics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.0mL EDTA Blood</td>
<td>0.5mL EDTA per time point</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LBW0054</td>
<td>PKW0291</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>None</td>
<td>Transfer all plasma to one</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>pre-labeled 2 ml cryovial,</td>
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<td></td>
<td>and freeze immediately</td>
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<td></td>
<td>after processing at -70°C or</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>colder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLD/EDT/BLD if</td>
<td>LDMS time/unit: ___/RPD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>entered into LDMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Not mandatory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>entry)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Send to local IQA</td>
<td>Subjects do not need to be</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>or CLIA certified</td>
<td>fasted. Send to local</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(or equivalent)</td>
<td>IMPACT processing lab on</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lab, ambient. The</td>
<td>ice and process within one</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>same lab must be</td>
<td>hour of collection.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>used throughout</td>
<td>2 blood samples will be</td>
<td></td>
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</tr>
<tr>
<td>the study.</td>
<td>collected 2 hours apart</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>between 12 and 26 hours</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>post-dose.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Collection Type</td>
<td>Code</td>
<td>Additional Instructions</td>
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<td>----------------</td>
<td>-----------------</td>
<td>---------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>Send to local lab.</td>
<td></td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>Send to local lab.</td>
<td></td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td></td>
</tr>
<tr>
<td>Abbott Real Time HIV1</td>
<td></td>
<td>F3109 if results not reported in LDMS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>US labs</strong>: Can be performed at any local CLIA certified lab.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Non-US labs</strong>: Must be performed at VQA approved lab.</td>
<td></td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry) Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
<td></td>
</tr>
</tbody>
</table>
### WEEK 48 VISIT (± 2 weeks)

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Volume</th>
<th>Container</th>
<th>Part Code</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
<td>0.5 ml</td>
<td>EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0 ml</td>
<td>NON or SSTBlood</td>
<td>PE6816</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Lipid Profiles</strong></td>
<td>1.0 ml</td>
<td>NON or SSTBlood</td>
<td>PE6816</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>PBMCs/Plasma for storage for future Virology studies</strong></td>
<td>4.5 ml</td>
<td>EDTA Blood</td>
<td>F3006</td>
<td>Freeze 2x1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5x10⁶ cells/0.5 ml aliquots.</td>
</tr>
<tr>
<td><strong>Urinalysis</strong></td>
<td>Urine</td>
<td>PE0811</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>M/C Ratio Assay</strong></td>
<td>4.0 ml</td>
<td>Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at −20°C or colder.</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
<td>3.0 mL</td>
<td>EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥1 x 1 ml aliquots at −70°C or colder.</td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0 ml</td>
<td>EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
</tr>
<tr>
<td>Confirm Suspected Virologic Failure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>3.0mL EDTA Blood F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 mL aliquots at –70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Test Type</td>
<td>Volume</td>
<td>Type</td>
<td>Code</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>--------</td>
<td>------------</td>
<td>-------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
<td>0.5ml</td>
<td>EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml</td>
<td>NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>PBMCs/Plasma for storage for future studies</strong></td>
<td>4.5ml</td>
<td>EDTA Blood</td>
<td>F3006</td>
<td>Freeze 2x1 ml aliquots plasma at $-70^\circ$C or colder. Freeze PBMCs viably in 5×10⁶ cells/0.5 ml aliquots.</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
<td>3.0mL</td>
<td>EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze $\geq 1 \times 1$ ml aliquots at $-70^\circ$C or colder.</td>
</tr>
<tr>
<td><strong>Genotyping</strong></td>
<td>2.0 m</td>
<td>EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at $-70^\circ$C or colder.</td>
</tr>
<tr>
<td><strong>Phenotyping</strong></td>
<td>2.0mL</td>
<td>EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at $-70^\circ$C or colder.</td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0mL</td>
<td>EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
</tr>
</tbody>
</table>
### Premature DC of Study Drug/On study
*(Participants who discontinue study drug early, should remain on study and follow Appendix IF.)*

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Volume</th>
<th>Collection</th>
<th>Code</th>
<th>Storage</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
<td>0.5ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
</tbody>
</table>
| **HIV-1 RNA PCR**    | 3.0mL EDTA Blood | F3006 (and F3109 if results not reported in LDMS) | Freeze ≥ 1 x 1 ml aliquots at −70°C or colder. | BLD/EDT/PL2 | US labs - Can be performed at any local CLIA certified lab. 
Non-US labs Must be performed at VQA approved lab. |
| **Genotyping**       | 2.0 m EDTA Blood | F3006      | Save all plasma in one aliquot and freeze at −70°C or colder. | BLD/EDT/PL2 | RT, PR and Integrase drug resistance to be tested. |
| **Phenotyping**      | 2.0mL EDTA Blood | F3006      | Save all plasma in two aliquots and freeze at −70°C or colder. | BLD/EDT/PL2 | To be collected only if sufficient blood volume |
| **Lymphocyte subsets** | 1.0mL EDTA Blood | LBW0054    | None  | BLD/EDT/BLD if entered into LDMS (Not a mandatory entry) | Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study. |
# Section 20 (Cohorts IV, IV-DT, and V-DT – STAGE II): Shipping Information & Addresses

ACTG/IMPAACT Laboratory Manual, Shipping Information and other useful information: [http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx](http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx)

<table>
<thead>
<tr>
<th></th>
<th>US SITES</th>
<th>AFRICA SITES</th>
<th>SOUTH AMERICA SITES</th>
<th>THAILAND SITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genotyping (SCREENING)</td>
<td>Ship in real time to LDMS LAB 238</td>
<td>Kenya and Uganda-test at local lab</td>
<td>Ship in real time to FioCruz</td>
<td>Ship in real time to PHPT LAB.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other site labs-Ship in real time to CLS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genotyping (VIROLOGIC FAILURE or Premature /DC of Study Drug/ On study)</td>
<td>Ship in real time to LDMS LAB 238</td>
<td>Ship in real time to 238 (BRI as Pass Through)</td>
<td>Ship in real time to 238 (BRI as Pass Through)</td>
<td>Ship in real time to 238 (BRI as Pass Through)</td>
</tr>
<tr>
<td>PHENOTYPING</td>
<td>Store locally and ship in batches to Monogram when requested</td>
<td>Store locally and ship in batches to Monogram when requested. (BRI as Pass Through)</td>
<td>Store locally and ship in batches to Monogram when requested. (BRI as Pass Through)</td>
<td>Store locally and ship in batches to Monogram when requested. (BRI as Pass Through)</td>
</tr>
<tr>
<td>ABBOTT HIV-1 RNA</td>
<td>Ship in real time to local CLIA approved lab</td>
<td>Ship in real time to local VQA approved lab</td>
<td>Ship in real time to local VQA approved lab</td>
<td>Ship in real time to local VQA approved lab</td>
</tr>
<tr>
<td>M/C RATIO</td>
<td>Ship in real time to Quest Diagnostics</td>
<td>Ship in real time to CLS</td>
<td>Ship in real time to Quest Diagnostics Lab (33)</td>
<td>Ship in real time to Siriraj Lab.</td>
</tr>
<tr>
<td>University of Alabama at Birmingham</td>
<td>Research Institute</td>
<td>CLS Africa</td>
<td>FioCruz, Brazil</td>
<td>PHPT Lab, Thailand</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>----------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Dr. Edward Acosta</td>
<td>Dr. Lisa Frenkel</td>
<td>Dr. Wendy Stevens</td>
<td>Dr. Marizaa G. Morgado / Deise Luci Rufinodos Santo</td>
<td>Dr. Nicole Ngo-Giang-Huong / Laddawan Laomanit</td>
</tr>
<tr>
<td>Attn: Kedria Walker</td>
<td>Attn: Ingrid Beck</td>
<td>Central Laboratory Services</td>
<td>Pavilhao Leonidas Deane, 4th</td>
<td>PHPT Laboratory</td>
</tr>
<tr>
<td>University of Alabama at</td>
<td>Seattle Children's Research Institute – Frenkel Lab</td>
<td>Spencer Lister Building</td>
<td>Avenida Brazil, 4365</td>
<td>548 Chiang Mai-Lamphun Rd</td>
</tr>
<tr>
<td>Birmingham</td>
<td>307 Westlake Ave N</td>
<td>4th Floor, NHLS complex</td>
<td>Manguinhos, RJ 21045-900</td>
<td>Nong Hoi Muang,</td>
</tr>
<tr>
<td>Division of Pharmacology</td>
<td>Seattle WA 98109 USA</td>
<td>Cnr De Korte and Hospital Street</td>
<td>Brazil</td>
<td>Chiang Mai 50000</td>
</tr>
<tr>
<td>1670 University Blvd. Volkmer Hall Rm 270</td>
<td>Phone: 206-884-3440</td>
<td>Braamfontein, Johannesburg, 2000</td>
<td>South Africa</td>
<td>Thailand</td>
</tr>
<tr>
<td>Birmingham, AL 35294-0019</td>
<td>Fax: 206-884-7311</td>
<td>South Africa</td>
<td>Phone: 011-55-21-25984583</td>
<td>Phone: +66-53-894-431</td>
</tr>
<tr>
<td></td>
<td>Email: Frenkellabshipments@seattlechi ldrens.org</td>
<td></td>
<td>Fax: 011-55-21-22801589</td>
<td>Fax: +66-53-894-220</td>
</tr>
<tr>
<td></td>
<td>LDMS Lab: 191</td>
<td></td>
<td>Email: <a href="mailto:mmorgado@ioc.fiocruz.br">mmorgado@ioc.fiocruz.br</a></td>
<td>Email: <a href="mailto:laddawan@phpt.org">laddawan@phpt.org</a></td>
</tr>
<tr>
<td></td>
<td><strong>Send a copy of PKW form to the PK testing lab when samples are shipped.</strong></td>
<td></td>
<td>Or: <a href="mailto:camposmello@hotmail.com">camposmello@hotmail.com</a></td>
<td>LDMS Lab: 251</td>
</tr>
<tr>
<td></td>
<td>LDMS Lab: 238</td>
<td></td>
<td>LDMS Lab: 319</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LDMS Lab: 350</td>
<td></td>
<td>LDMS Lab: 319</td>
<td></td>
</tr>
<tr>
<td></td>
<td>**</td>
<td></td>
<td>LDMS Lab: 319</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quest Diagnostics</th>
<th>Siriraj Laboratory, Thailand</th>
<th>BRI Repository</th>
<th>Monogram Biosciences</th>
<th>Fisher Repository (NICHD Sites)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quest Diagnostics Incorporated</td>
<td>Attn: Dr. Sathien Sukpanichnan,</td>
<td>Attn: John C. Ward</td>
<td>Attn: Tim Persyn</td>
<td>Fisher Bioservices</td>
</tr>
<tr>
<td>Dr. William Meyer</td>
<td>Asst. Professor</td>
<td>Biomedical Research Institute</td>
<td>Monogram Biosciences</td>
<td>C/o Maria Wolff</td>
</tr>
<tr>
<td>Attn: Denise Bopst- Special</td>
<td>Siriraj Laboratory</td>
<td>(BRI)</td>
<td>345 Oyster Point Blvd.</td>
<td>Biological Services Division</td>
</tr>
<tr>
<td>Studies</td>
<td>Department of Clinical</td>
<td>9410 Key West Avenue, First</td>
<td>So. San Francisco, CA 94080</td>
<td>625 Lofstrand Lane</td>
</tr>
<tr>
<td></td>
<td>Pathology</td>
<td>Floor</td>
<td>Phone: 650-624-4271</td>
<td>Rockville, MD 20850</td>
</tr>
<tr>
<td></td>
<td>Siriraj Hospital, Mahidol</td>
<td>Rockville, MD 20850</td>
<td>Fax: 650-624-4457</td>
<td>Tel: 301-340-1620</td>
</tr>
<tr>
<td></td>
<td>University</td>
<td></td>
<td>Email: <a href="mailto:Persyn@labcorp.com">Persyn@labcorp.com</a></td>
<td>Fax: 301-838-9753</td>
</tr>
<tr>
<td></td>
<td>2 Prannok Road, Bangkoknoi</td>
<td></td>
<td>Email: Maria.wolf@thermos</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bangkok 10700</td>
<td></td>
<td>fisher.com</td>
<td><a href="http://www.fishersci.com/">http://www.fishersci.com/</a></td>
</tr>
<tr>
<td></td>
<td>Thailand</td>
<td></td>
<td>LDMS Lab: 258</td>
<td>LDMS Lab: 243</td>
</tr>
<tr>
<td></td>
<td>Phone: +6624196590</td>
<td></td>
<td>LDMS Lab: 258</td>
<td>LDMS Lab: 243</td>
</tr>
<tr>
<td></td>
<td>Email: <a href="mailto:sathiensk@yahoo.com">sathiensk@yahoo.com</a></td>
<td></td>
<td>LDMS Lab: 258</td>
<td>LDMS Lab: 243</td>
</tr>
<tr>
<td></td>
<td>LDMS Lab: 258</td>
<td></td>
<td>LDMS Lab: 258</td>
<td>LDMS Lab: 243</td>
</tr>
</tbody>
</table>
Instructions for BRI 'Pass-Through’ Specimens
(Additional instructions can be found in Section 6.5 of the MOPs)
This process is to be used ONLY for the following laboratories and specimens:
- Genotyping at VIROLOGIC FAILURE (ALL non-US sites)
- Phenotyping at SCREENING and VIROLOGIC FAILURE (ALL non-US sites)
- Intensive PK assays (ALL non-US Sites)
- Population PK assays (ALL non-US Sites)

When creating the LDMS shipping batch select the appropriate testing laboratory as the shipment destination based on the P1093 LPC:
- Genotyping at VIROLOGIC FAILURE – University of Washington LDMS LAB 238
- Phenotyping – Monogram Biosciences
- Intensive PK assays – UAB - Lab code: 191
- Population PK assays – UAB - Lab code: 191

IMPORTANT: When preparing the LDMS shipment as a ‘pass-through’, DONOT select lab 999 (BRI) as the destination. BRI is not the final destination for any ‘pass-through’ specimens!

Pack the specimens as you normally would and address the Safety Pack/World Courier Secondary Packaging to the final shipment destination of Lab code: 238 or 191 (see above)

Be sure to include the correct “Pass Through” shipping notification inside the box addressed to BRI. The shipping notifications can be found in Appendix II, III and IV of the MOPs.

Be sure to send the LDMS shipping manifest, diskette and any necessary CRFs to the testing lab.

Place this fully packed and addressed shipment within a box and address the outer box to the BRI repository:
Sect. 21:

Long-term Safety Follow-up for Participants Who Continue to Receive Dolutegravir
Copied from Appendix IE Schedule of Evaluations

<table>
<thead>
<tr>
<th>Visit Windows</th>
<th>Every 12 Weeks [Weeks 60, 72, 84, 96, 108, 120, 132, 144, 156, 168, 180, and 192(End of Study Visit)]</th>
<th>Every 48 Weeks [Weeks 96, 144 and 192(End of Study Visit)]</th>
<th>Confirm suspected virologic failure&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Virologic failure&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Premature Discontinuation of Study Drug/On Study&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>LABORATORY EVALUATIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3mL</td>
<td>3mL</td>
<td>3mL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PBMCs/plasma for storage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.5mL</td>
</tr>
<tr>
<td>Genotyping</td>
<td>2mL&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>2mL&lt;sup&gt;3&lt;/sup&gt;</td>
<td>2mL&lt;sup&gt;3,4&lt;/sup&gt;</td>
</tr>
<tr>
<td>Phenotyping</td>
<td></td>
<td></td>
<td></td>
<td>2mL</td>
<td>2mL&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td>Lipid profiles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnancy test&lt;sup&gt;5&lt;/sup&gt;</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Total Maximum Blood Volumes&lt;sup&gt;6&lt;/sup&gt;</td>
<td>3mL</td>
<td>3mL</td>
<td></td>
<td>13.5mL</td>
<td>4mL</td>
</tr>
</tbody>
</table>

Appendix IE - Footnotes:

1. History and physical exam (including height, weight, vital signs [temperature, pulse, respirations and blood pressure, occurrence of adverse events since last study visit and any HIV-1 associated conditions). Weight should be measured without shoes and with minimal clothing. For female participants 9 years of age and older, menarche status and for participants who have reached menarche, sexual activity and contraceptive use.

2. Genotyping to be done for participants post virologic failure, ONLY if requested to do so by the Protocol Team.

3. Specimens for genotyping and phenotyping should be obtained and stored at this visit, but only sent for processing if the confirmatory HIV RNA test at this visit is > 400 c/ml. Please refer to the Laboratory Processing Chart (LPC) for additional details.

4. Only if not done at virologic failure visit.

5. Pregnancy testing, after the initial 48 weeks of study drug, should be determined as per local practice. If pregnancy occurs, it is an event that should be captured on the CRFs.

6. If a participant meets a criterion for suspected virologic failure, as defined in Section 6.5, collect a confirmatory HIV-1 RNA PCR sample at least 1 week but no more than 4 weeks from the date of specimen collection of the initial RNA PCR test. If a sample cannot be obtained within weeks, samples should be collected as soon as possible beyond 4 weeks.

7. If a participant is confirmed as having virologic failure, as defined in Section 6.5, conduct a Virologic Failure Visit at least one week and within four weeks.

8. The blood volumes listed are ideal, but may not always be possible due to site-specific regulations or challenges with phlebotomy in certain participants. For insufficient blood draws, priorities are as follows: pharmacokinetic studies; HIV-1 RNA; genotyping; plasma and PBMCs/plasma for storage; phenotyping; lipid profiles.

9. Participants, who discontinue study drug early, should remain on study and follow Appendix IF.
### Section 22 (LONG-TERM SAFETY FOLLOW-UP): Safety/Clinical Laboratory Evaluations

*Defer to local clinical specimen collection guidelines for tube types and collection volumes whenever discrepancies occur.*

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>DMC Test Code</th>
<th>Tests</th>
<th>CRF #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lipid Profile</td>
<td>N/A</td>
<td>Lipid profile- triglycerides, cholesterol, HDL, LDL</td>
<td>PE6816</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>N/A</td>
<td>□ HCG (pregnancy test) (urine test must have a sensitivity of ≤25mIU/mL)</td>
<td>F0847</td>
</tr>
</tbody>
</table>

### Section 23 (LONG-TERM SAFETY FOLLOW-UP): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF # DMC Test Code</th>
<th>Processing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>EDTA</td>
<td>Invert tube 8 to 10 times gently. Send to IMPAACT (NAIAD) or (NICHD) processing lab ambient.</td>
<td>F3006 (and F3109 if results are not reported through LDMS) RNAHIV</td>
<td>Spin blood at 800xg for 10 min. Transfer plasma and re-spin at 800xg for 10min. Freeze 1x 1mL aliquot and any residual plasma in a second aliquot at -70°C, or colder.</td>
<td>US labs- Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>PBMCs/Plasma for repository storage</td>
<td>EDTA</td>
<td>Send to IMPAACT processing lab ambient</td>
<td>F3006 STORVIR</td>
<td>Spin blood at 400xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Freeze 2x1 ml aliquots at -70°C or colder. Ficoll and cryopreserve PBMCs per the Cross Network Cryopreservation SOP. Freeze PBMCs viably in 5X10⁶ cells/0.5 ml aliquots.</td>
<td>NIAID sites: Store on site and Ship to BRI as directed. NICHD sites: Store on site and Ship to Fisher as directed.</td>
</tr>
</tbody>
</table>
### Section 23 (LONG-TERM SAFETY FOLLOW-UP): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF # DMC Test Code</th>
<th>Processing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance Genotyping (If determined by the team, genotyping may be done at a frequency ≥24 weeks post virologic failure if HIV-1 RNA is &gt;400 c/mL)</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 GENOHIV</td>
<td>Spin blood at 800xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>US sites and International sites follow team instructions.</td>
</tr>
<tr>
<td>Resistance (Genotyping) (VIROLOGIC FAILURE or Premature DC of Study Drug/On Study)</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 GENOHIV</td>
<td>Spin blood at 800xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>US sites - Ship Real Time to LDMS LAB 238. Include UW requisition form found on P1093 Website. All International Sites - Ship real time to LDMS Lab 238 (utilizing BRI as Pass Through). Include UW requisition form found on P1093 Website.</td>
</tr>
</tbody>
</table>
### Section 23 (LONG-TERM SAFETY FOLLOW-UP): Specimen Processing & Shipping Instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Tube Type</th>
<th>Special Collection Notes</th>
<th>CRF # DMC Test Code</th>
<th>Processing</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance (Phenotyping)</td>
<td>EDTA</td>
<td>N/A</td>
<td>F3006 PHENOHIV</td>
<td>Spin blood at 800xg for 10 mins; remove plasma and re-spin at 800xg for 10 min. Save all plasma in one aliquot and freeze at –70°C or colder.</td>
<td>US sites store on site and ship to Monogram when requested. International sites store on site and ship to BRI when requested. (Final Destination Monogram)</td>
</tr>
<tr>
<td>Population Pharmacokinetics</td>
<td>EDTA</td>
<td>Samples collected at different time points depending on the visit day. Send to local IMPAACT processing lab on ice.</td>
<td>PKW0291 PKPOP</td>
<td>Centrifuge blood within one hour of collection at 1000 x g for 10 minutes at 0-5°C. Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at -70°C or colder.</td>
<td>US sites ship every 24 weeks to UAB. Send a copy of PKW0291 to the PK testing lab when samples are shipped. International sites ship every 24 weeks to BRI as a pass-through (Final Destination UAB). Send a copy of PKW0291 to the PK testing lab when samples are shipped.</td>
</tr>
</tbody>
</table>
Section 24 (LONG-TERM SAFETY FOLLOW-UP): Evaluations by Visit - refer to Section 23 for processing instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Specimen</th>
<th>CRF</th>
<th>Aliquots</th>
<th>LDMS Code</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EVERY 12 WEEKS ±4 wks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Weeks 60, 72, 84, 96, 108, 120, 132, 144, 156, 168, 180, and 192) End of Study Visit</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
</tbody>
</table>
### Section 24 (LONG-TERM SAFETY FOLLOW-UP): Evaluations by Visit - refer to Section 23 for processing instructions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Specimen</th>
<th>CRF</th>
<th>Aliquots</th>
<th>LDMS Code</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EVERY 48 WEEKS ±4 wks</strong> [Weeks 96, 144 and 192 (End of Study Visit)]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genotyping</td>
<td>2.0 m EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at –70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>Genotyping to be done for participants post virologic failure, ONLY if requested to do so by the Protocol Team.</td>
</tr>
<tr>
<td>Lipid Profiles</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab. Non-fasting unless triglycerides are ≥Grade 2 (using DAIDS toxicity table for fasting triglycerides), then complete fasting state lipid profile must be done. Once subject has ≥Grade 2 non-fasting, all future lipid profiles must be fasting.</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
</tbody>
</table>

### Confirm Suspected Virologic Failure

| HIV-1 RNA PCR Abbott Real Time HIV1 | 3.0mL EDTA Blood | F3006 (and F3109 if results not reported in LDMS) | Freeze ≥1 x 1 ml aliquots at –70°C or colder. | BLD/EDT/PL2 | US labs—Can be performed at any local CLIA certified lab.  
Non-US-labs Must be performed at VQA approved lab. |
VIROLOGIC FAILURE
(If a participant is confirmed as having virologic failure as defined in Section 6.5, conduct a Virologic Failure Visit at least one week and within four weeks.)

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Blood Volume</th>
<th>Sample Type</th>
<th>Storage Requirements</th>
<th>Labs Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2 US labs: Can be performed at any local CLIA certified lab. Non-US labs: Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>PBMCs/Plasma for storage for future studies</td>
<td>6.5 ml EDTA Blood</td>
<td>F3006</td>
<td>Freeze 2 x 1 ml aliquots plasma at −70°C or colder. Freeze PBMCs viably in 5 x 10^6 cells/0.5 ml aliquots.</td>
<td>BLD/EDT/PL2 BLD/EDT/CEL/DMS Send to IMPAACT processing lab ambient.</td>
</tr>
<tr>
<td>Genotyping</td>
<td>2.0 m EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2 RT, PR and Integrase drug resistance to be tested.</td>
</tr>
<tr>
<td>Phenotyping</td>
<td>2.0mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2 To be collected only if sufficient blood volume</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A Send to local lab.</td>
</tr>
</tbody>
</table>
### Premature Discontinuation of Study Drug/On Study

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Blood Type</th>
<th>Test Code</th>
<th>Test Details</th>
<th>Storage</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genotyping</td>
<td>2.0 m EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>RT, PR and Integrase drug resistance to be tested.</td>
</tr>
<tr>
<td>Phenotyping</td>
<td>2.0mL EDTA Blood</td>
<td>F3006</td>
<td>Save all plasma in one aliquot and freeze at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>To be collected only if sufficient blood volume</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
</tbody>
</table>

**Notes:**
- BLD/EDT/PL2: Blood/EDTA/Processed Lab.
- RT: Reverse Transcriptase.
- PR: Protease.
- Integrase: Integrase.
Section 25 (LONG-TERM SAFETY FOLLOW-UP): Evaluations by Visit - refer to processing instructions Shipping Information & Addresses

ACTG / IMPAACT Laboratory Manual, Shipping Information and other useful information: [http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx](http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx)

<table>
<thead>
<tr>
<th></th>
<th>US SITES</th>
<th>AFRICA SITES</th>
<th>SOUTH AMERICA SITES</th>
<th>THAILAND SITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABBOTT HIV-1 RNA</td>
<td>Ship in real time to local approved lab</td>
<td>Ship in real time to local approved lab</td>
<td>Ship in real time to local approved lab</td>
<td>Ship in real time to local approved lab</td>
</tr>
<tr>
<td>M/C RATIO</td>
<td>Ship in real time to Quest Diagnostics</td>
<td>Ship in real time to CLS</td>
<td>Ship in realtime to Quest Diagnostics Lab (33)</td>
<td>Ship in real time to Siriraj Lab.</td>
</tr>
<tr>
<td>PBMCs / Plasma for storage</td>
<td>NIAID Sites: Store locally and ship in batches to BRI as directed</td>
<td>NIAID Sites: Store locally and ship in batches to BRI as directed</td>
<td>NIAID Sites: Store locally and ship in batches to BRI as directed</td>
<td>NIAID Sites: Store locally and ship in batches to BRI as directed</td>
</tr>
<tr>
<td></td>
<td>NICHD Sites: Store locally and ship in batches to Fisher as directed</td>
<td></td>
<td>NICHD Sites: Store locally and ship in batches to Fisher as directed</td>
<td>NICHD Sites: Store locally and ship in batches to Fisher as directed</td>
</tr>
</tbody>
</table>
Section 25 (LONG-TERM SAFETY FOLLOW-UP): Evaluations by Visit - refer to processing instructions Shipping Information & Addresses

<table>
<thead>
<tr>
<th>University of Alabama at Birmingham</th>
<th>Research Institute</th>
<th>CLS Africa</th>
<th>FioCruz, Brazil</th>
<th>PHPT Lab, Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Edward Acosta</td>
<td>Dr. Lisa Frenkel</td>
<td>Dr. Wendy Stevens</td>
<td>Dr Mariza G. Morgado / Deise Luci Rufino dos Santo</td>
<td>Dr. Nicole Ngo-Giang-Huong / Laddawan Laomanit</td>
</tr>
<tr>
<td>Attn: Kedria Walker</td>
<td>Attn: Dr. Ingrid Beck</td>
<td>Central Laboratory Services</td>
<td>Pavilhao Leonidas Deane, 4th Floor</td>
<td>Laddawan Laomanit</td>
</tr>
<tr>
<td>University of Alabama at Birmingham</td>
<td>Seattle Children’s Research Institute – Frenkel Lab</td>
<td>Spencer Lister Building 4th Floor, NHLScomplex</td>
<td>Avenida Brazil, 4365</td>
<td>PHPT Laboratory</td>
</tr>
<tr>
<td>Division of Pharmacology</td>
<td>307 Westlake Ave N</td>
<td>Cnr De Korte and Hospital Street</td>
<td>Manguinhos, RJ 21045-900</td>
<td>548 Chiang Mai-Lamphun Rd</td>
</tr>
<tr>
<td>University Blvd.</td>
<td>Seattle WA 98109</td>
<td>Braamfontein, Johannesburg,</td>
<td>Brazil</td>
<td>Nong Hoi Muang,</td>
</tr>
<tr>
<td>USA</td>
<td>USA</td>
<td>2000 South Africa</td>
<td></td>
<td>Chiang Mai 50000</td>
</tr>
<tr>
<td>Phone: 205-975-2461</td>
<td>Phone: 206–884-3440</td>
<td>Phone: 011-55-21-25984583</td>
<td>Phone: +66-53-894-431</td>
<td>Phone: +66-53-894-220</td>
</tr>
<tr>
<td>Fax: 205-934-6201</td>
<td>Fax: 206-884-7311</td>
<td>Fax: 011-55-21-22801589</td>
<td>Fax: +66-53-894-220</td>
<td>Email: <a href="mailto:laddawan@phpt.org">laddawan@phpt.org</a></td>
</tr>
<tr>
<td>LDMS Lab: 191</td>
<td>Email: <a href="mailto:Frenkellabshipments@seattlechildrens.org">Frenkellabshipments@seattlechildrens.org</a></td>
<td>Email: <a href="mailto:mmorgado@ioc.fiocruz.br">mmorgado@ioc.fiocruz.br</a></td>
<td><strong>End a copy of PKW form to the PK testing lab when samples are shipped.</strong></td>
<td>LDMS Lab: 319</td>
</tr>
<tr>
<td></td>
<td>LDMS Lab: 238</td>
<td>Email: <a href="mailto:wendy.stevens@nhls.ac.za">wendy.stevens@nhls.ac.za</a></td>
<td>Or : <a href="mailto:camposmello@hotmail.com">camposmello@hotmail.com</a></td>
<td>LDMS Lab: 251</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LDMS Lab: 350</td>
<td><strong>Send a copy of PKW form to the PK testing lab when samples are shipped.</strong></td>
<td></td>
</tr>
</tbody>
</table>
**Section 25 (LONG-TERM SAFETY FOLLOW-UP): Evaluations by Visit** - refer to processing instructions Shipping Information & Addresses

<table>
<thead>
<tr>
<th>Quest Diagnostics</th>
<th>BRI Repository</th>
<th>Monogram Biosciences</th>
<th>Fisher Repository (NICHD Sites)</th>
</tr>
</thead>
</table>
| Quest Diagnostics  
Incorporated  
Dr. William Meyer  
Attn: Denise Bopst- Special Studies  
1901 Sulphur Spring Road  
Baltimore MD 21227  
TEL: 410-536-1713  
FAX: 410-536-1744  
Email: DGXBaltimoreSpecialStudiesDepartment@questdiagnostics.com  
LDMS Lab #33 | BRI Repository  
Attn: John C. Ward  
Biomedical Research Institute (BRI)  
9410 Key West Avenue, First Floor  
Rockville, MD 20850  
Phone (301)881-7636  
Fax (301)770-9811  
Email: brirepository@afbr-bri.com  
LDMS Lab: 999 | Monogram Biosciences  
Attn: Tim Persyn  
Monogram Biosciences  
345 Oyster Point Blvd.  
So. San Francisco, CA 94080  
Phone: 650-624-4271  
Fax: 650-624-4457  
Email: Persynt@labcorp.com | Fisher Repository  
C/o Maria Wolff  
Biological Services Division  
625 Lofstrand Lane  
Rockville, MD 20850  
Tel: 301-340-1620  
Fax: 301-838-9753  
Email: Maria.wolff@thermofisher.com  
http://www.fishersci.com/  
LDMS Lab: 243 |
Instructions for BRI ‘Pass-Through’ Specimens
(Additional instructions can be found in Section 6.5 of the MOP)
This process is to be used ONLY for the following laboratories and specimens:
   o Intensive PK assays (ALL non-US Sites)
   o Population PK assays (ALL non-US Sites)

When creating the LDMS shipping batch select the appropriate testing laboratory as the shipment destination based on the P1093 LPC:
   o Intensive PK assays – UAB - Lab code: 191
   o Population PK assays – UAB - Lab code: 191

IMPORTANT: When preparing the LDMS shipment as a ‘pass-through’, DO NOT select lab 999 (BRI) as the destination. BRI is not the final destination for any ‘pass-through’ specimens!

Pack the specimens as you normally would and address the Safety Pack/World Courier Secondary Packaging to the final shipment destination of Lab code: 191 (see above)

Be sure to include the correct “Pass Through” shipping notification inside the box addressed to BRI. The shipping notifications can be found in Appendix II, III and IV of the MOPs.

Be sure to send the LDMS shipping manifest, diskette or email file and any necessary CRFs to the testing lab.

Place this fully packed and addressed shipment within a box and address the outer box to the BRI repository:
Section 26:
SCHEDULE OF EVALUATIONS

Participants who Prematurely Discontinue Dolutegravir
Copied from APPENDIX IF

Participants who continue DTG will be followed as per *Copied from Appendix IE*

<table>
<thead>
<tr>
<th></th>
<th>4 Week Follow-Up Visit(^2)</th>
<th>Every 3 months until resolved (if applicable)(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit Windows</td>
<td>±2wks</td>
<td>±4wks</td>
</tr>
<tr>
<td>NO LAB TESTING</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Section 27: SCHEDULE OF EVALUATIONS

Participants who Start Rifampin as Part of Treatment for Active Tuberculosis

Copied from APPENDIX IG

<table>
<thead>
<tr>
<th>Study Visits Following Initiation of Rifampin Therapy</th>
<th>Day 1 of rifampin therapy</th>
<th>Week 2</th>
<th>Week 4</th>
<th>Week 12</th>
<th>Every 8 weeks until end of rifampin therapy</th>
<th>Confirm Suspected Virologic Failure</th>
<th>Virologic failure</th>
<th>Premature Discontinuation of Study Drug/On study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit Windows</td>
<td>±1 wk</td>
<td>±1 wk</td>
<td>±1 wk</td>
<td>±2 wks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LABORATORY EVALUATIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hematology</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td></td>
</tr>
<tr>
<td>Chemistries&lt;sup&gt;4&lt;/sup&gt;</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td>1mL</td>
<td></td>
</tr>
<tr>
<td>Lipid profiles&lt;sup&gt;4&lt;/sup&gt;</td>
<td>1mL</td>
<td>1mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microalbumin/creatinine ratio assay—urine&lt;sup&gt;5&lt;/sup&gt;</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PBMCs / plasma for storage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.5mL</td>
</tr>
<tr>
<td>Pregnancy test&lt;sup&gt;6&lt;/sup&gt;</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Virology</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3mL</td>
<td>3mL</td>
<td>3mL</td>
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<tr>
<td><strong>Immunology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lymphocyte subsets&lt;sup&gt;7&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pharmacokinetics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intensive PK&lt;sup&gt;8&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Population PK&lt;sup&gt;9&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Maximum Blood Volumes</strong>&lt;sup&gt;13&lt;/sup&gt;</td>
<td>6mL</td>
<td>13mL</td>
<td>6mL</td>
<td>8mL</td>
<td>6mL</td>
<td>12.5mL</td>
<td>6mL</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Participants who are diagnosed with active tuberculosis while taking DTG as part of P1093, will have their medications changed as per Section 6.1.8 and should be followed as per Appendix IG. It is estimated the participant will be on anti-TB treatment for approximately 24 weeks. Upon discontinuation of the rifampin containing anti-TB therapy, the participant’s DTG dose will revert back to once daily administration. The participant should complete the remainder of the first 48 weeks of DTG therapy on their original schedule of evaluations, or if they have completed 48 weeks of DTG therapy, they should move to long-term follow-up (copied from Appendix IE). For example, if the participant was at week 16 when they were started on rifampin, and they complete 24 weeks of rifampin therapy, they would then go back to week 40 of their original SOE.
Appendix IG Footnotes:

1. Participants who are already enrolled in P1093 and become exposed to TB, and subsequently require an anti-TB treatment that includes the use of rifampin, may be allowed to continue in the study if their ART options are compatible with co-administration of rifampin. Continuation requires the approval of the Protocol Team.

2. History and physical exam (including height, weight, vital signs [temperature, pulse, respirations and blood pressure], occurrence of adverse events since last study visit and HIV-1 associated conditions). Weight should be measured without shoes and with minimal clothing.

3. Chemistries will be performed at all visits. Electrolytes (sodium, potassium, and HCO₃⁻), glucose, creatinine, lipase, phosphorus, and LFTs. LFTs should include total bilirubin, indirect bilirubin, direct bilirubin, alkaline phosphatase, AST, ALT, and albumin. If indirect bilirubin is not reported by the site laboratory, it should be calculated at the site and documented. The following (listed in order of preference) should be used to determine the upper limit of normal (ULN) values for indirect bilirubin.
   a. "ULN" values reported by the laboratory report for the test, or
   b. "ULN" values routinely used/established by the site or
   c. "ULN" values as per the most current Harriet Lane Handbook. (In the 2018 version of the Harriet Lane Handbook, for a full term infant, the ULN for total bilirubin is 1.2 mg/dL (21 µmol/L) and for direct bilirubin is 0.2 mg/dL (3.4 µmol/L); thus the ULN for indirect bilirubin would be 1.0 mg/dL (17.6 µmol/L)). Sites must be consistent with the way toxicities are evaluated for all participants in the study; sites should use the same source throughout the study. Remember to have documentation of calculated indirect bilirubin and source of "ULN", when not reported by your laboratory.

4. Lipid Profile (triglycerides, cholesterol, HDL, LDL) will be drawn in a non-fasting state. However, if triglycerides are grade 2 (using DAIDS toxicity table for fasting triglycerides), a complete fasting state lipid profile (triglycerides, cholesterol, HDL, and LDL) must be drawn. Fasting intervals will be overnight or at least 8 hours. After a participant has had a grade 2 triglycerides in non-fasting state, all future triglycerides must be obtained in fasting state.

5. M/C ratio – microalbumin / creatinine ratio

6. Pregnancy test (urine preferably) must be performed on all females of reproductive potential at each visit. If a serum beta hCG test is performed, collect 1.0mL in a red top serum tube.

7. Lymphocyte subset blood samples should be collected in EDTA tubes. These samples will be analyzed for CD4 and CD8.

8. The pharmacokinetic evaluation should be scheduled so that witnessed dosing of DTG is as close as possible to 24 hours (generally 22-26 hours) after the previous dosing. Participants should have been compliant in taking their medications for 3 days prior to the intensive PK visit; otherwise the intensive PK visit should be re-scheduled. For participants who vomit within 4 hours after dosing; PK must be cancelled and may be rescheduled. Blood samples (0.5mL per sample) will be collected at the following time points: pre-dose, and at 1, 2, 3, 4, 6, 8, and 12 hours post-dose. To allow for some flexibility, the 8-hour sample can be collected with a window of 7–9 hours post-dose and the 12 hour sample with a window of 11–13 hours. US sites will ship intensive PK samples in real time to UAB; all non-US sites will ship PK samples in real time to BRI repository for a ‘pass-through’ (see LPC for instructions). See dosing and fasting instructions for Cohorts I-III and Cohorts IV-V-DT, below.

   Instructions for Cohorts I-III:
   • ≥6 hours PRIOR to dosing – participants may eat and drink without restriction
• ≥4 to <6 hours PRIOR to dosing – milk, apple/orange juice and water may be consumed; No food
• <4 hours PRIOR to dosing – water ONLY
• From dosing to <2 hours POST dose – apple/orange juice and water may be consumed; No food
• From ≥2 to <4 hours POST dose – participants may drink apple/orange juice and eat a snack/light meal (around 100-150 calories)
• From ≥4 hours POST dose onwards – participants may eat and drink without restriction.

Instructions for Cohorts IV-V-DT:

Participants should not ingest breastmilk, formula or any other high fat food/liquid for 2 hours prior to and 1 hour after dosing on the intensive PK day. Water and other fluids (i.e. apple/orange juice and oral rehydration solution) can be taken at any time.

9. All participants will have 2 blood samples (0.5mL per sample) collected at weeks 4 and 12: pre-dose and 8-14 hours post dose. Samples to be batched and shipped as described in the LPC.

10. If a participant meets a criterion for suspected virologic failure, as defined in Section 6.5, collect a confirmatory HIV-1 RNA PCR sample at least 1 week but not more than 4 weeks from the date of specimen collection of the initial RNA PCR test. If a sample cannot be obtained within weeks, samples should be collected as soon as possible beyond 4 weeks.

11. If a participant is confirmed as having virologic failure, as defined in Section 6.5, conduct a Virologic Failure Visit at least one week and within four weeks.

12. Participants who discontinue study drug (DTG) early are required to come back to clinic four weeks after stopping study drug or after resolution of any adverse event.

13. The blood volumes listed are ideal, but may not always be possible due to site-specific regulations or challenges with phlebotomy in certain participants. For insufficient blood draws, priorities are as follows: pharmacokinetic studies; HIV-1 RNA; genotyping; plasma and PBMCs/plasma for storage; phenotyping; lipid profiles.
### Section 28 (Participants who Start Rifampin as Part of Treatment for Active Tuberculosis): Safety/Clinical Laboratory Evaluations

*Defer to local clinical specimen collection guidelines for tube types and collection volumes whenever discrepancies occur.*

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>DMC Test Code</th>
<th>Tests</th>
<th>CRF #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>N/A</td>
<td>CBC (to include platelet and differential)</td>
<td>PE6811</td>
</tr>
<tr>
<td>Chemistry</td>
<td>N/A</td>
<td>Chemistry-Electrolytes (sodium, potassium, HCO₃, glucose, creatinine, lipase, phosphorus, and LFTs (total bilirubin, indirect bilirubin, direct bilirubin, alkaline phosphatase, AST, ALT, and albumin.)</td>
<td>PE6816</td>
</tr>
<tr>
<td>Lipid Profile</td>
<td>N/A</td>
<td>Lipid profile- triglycerides, cholesterol, HDL, LDL</td>
<td>PE6816</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>N/A</td>
<td>☐ HCG (pregnancy test) (urine test must have a sensitivity of ≤25mIU/mL)</td>
<td>F0847</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Tube Type</td>
<td>Special Collection Notes</td>
<td>CRF # DMC Test Code</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------</td>
<td>-------------------------------------------------------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>PBMCs/Plasma for repository storage for future studies</td>
<td>EDTA</td>
<td>Send to IMPAACT processing lab ambient</td>
<td>F3006 STORVIR</td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>EDTA</td>
<td>Invert tube 8 to 10 times gently.</td>
<td>F3006 (and F3109 if results are not reported through LDMS) RNAHIV</td>
</tr>
<tr>
<td>Study Area</td>
<td>Collection Method</td>
<td>Instructions</td>
<td>Reference Numbers</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Lymphocyte subsets-CD3/CD4, CD3/CD8 cell counts and percentages</td>
<td>EDTA</td>
<td>Send to local IQA or CLIA certified (or equivalent) lab, ambient. The same lab must be used throughout the study.</td>
<td>LBW0054 CD4CD8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dual platform labs only must also have a WBC and diff.</td>
<td></td>
</tr>
<tr>
<td>Intensive Pharmacokinetics</td>
<td>EDTA</td>
<td>Subjects must be fasted for 4 hours prior to dosing (see Section I footnote #8 for additional info.) Time points: Pre-dose, 1, 2, 3, 4, 6, 8 and 12 hours post dosing. Send to local IMPAACT processing lab on ice.</td>
<td>PKW0290 PKINT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Centrifuge blood within one hour of collection at 1000 x g for 10 minutes at 0-5°C. Transfer all plasma to one pre-labeled 2 ml cryovial, and freeze immediately after processing at -70°C or colder.</td>
<td></td>
</tr>
<tr>
<td>Population Pharmacokinetics</td>
<td>EDTA</td>
<td>Samples collected at different time points depending on the visit day. Send to local IMPAACT processing lab on ice.</td>
<td>PKW0291 PKPOP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Centrifuge blood within one hour of collection at 1000 x g for 10 minutes at 0-5°C. Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at -70°C or colder.</td>
<td></td>
</tr>
</tbody>
</table>

US sites ship every 24 weeks to UAB. **Send a copy of PKW0291 to the PK testing lab when samples are shipped.**

International sites ship every 24 weeks to BRI as a pass-through (Final Destination UAB). **Send a copy of PKW0291 to the PK testing lab when samples are shipped.**
# Section 30 (Participants who Start Rifampin as Part of Treatment for Active Tuberculosis: Evaluations by Visit - refer to Section 30 for processing instructions)

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Specimen</th>
<th>CRF</th>
<th>Aliquots</th>
<th>LDMS Code</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1 of rifampin therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Lipid Profiles</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab. Non-fasting unless triglycerides are ≥ Grade 2 (using DAIDS toxicity table for fasting triglycerides), then complete fasting state lipid profile must be done. Once subject has ≥ Grade 2 non-fasting, all future lipid profiles must be fasting.</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at –70°C or colder.</td>
<td>BLD/EDT/PL2 USlabs-Can be performed at any local CLIA certified lab. Non-US-labs Must be performed at VQA approved lab.</td>
<td></td>
</tr>
<tr>
<td>Intensive Pharmacokinetics</td>
<td>1.0mLEDTApertime point</td>
<td>PKW0290</td>
<td>Transfer all plasma to one pre-labeled 2 ml cryovial and freeze immediately after processing at –70°C or colder.</td>
<td>BLD/EDT/PL1 LDMS time/time unit: 0/Pre, X/Hr Subjects must be fasted for 6 hours prior to dosing, Send to local IMPAACT processing lab on ice and process within one hour of collection. NOTE: See LPC footnote #8 for specific requirements for compliance and food and liquid intake on PK day. Samples will be collected at the following timepoints: pre-dose, 1, 2, 3, 4, 6, 8 and 12 hours post-dosing.</td>
<td></td>
</tr>
<tr>
<td>Test Type</td>
<td>Sample Type</td>
<td>Code</td>
<td>Code Description</td>
<td>Details</td>
<td>Location</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------</td>
<td>--------</td>
<td>------------------</td>
<td>----------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>M/C Ratio Assay</strong></td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at –20°C or colder.</td>
<td>URN/NON/URN</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
<td>Send to local lab.</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006</td>
<td>Freeze ≥ 1 x 1 ml aliquots at –70°C or colder.</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td><strong>Population Pharmacokinetics</strong></td>
<td>0.5mL EDTA pre-time point</td>
<td>PKW0291</td>
<td>Transfer all plasma to one pre-labeled 2 mL cryovial and freeze immediately after processing at –70°C or colder</td>
<td>BLD/EDT/PL1</td>
<td>Subjects do not need to be fasted. Send to local IMPAACT processing lab on ice and process within one hour of collection. 2 blood samples will be collected at pre-dose and 8-14 hours post-dose</td>
</tr>
</tbody>
</table>
### WEEK 12 VISIT (±1 week)

<table>
<thead>
<tr>
<th>Category</th>
<th>Sample Type</th>
<th>Code</th>
<th>Label</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>1.0ml NON or SST</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Lipid Profiles</strong></td>
<td>1.0ml NON or SST</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>M/C Ratio Assay</strong></td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR</strong></td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>3.0x1ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2 USlabs-Can be performed at any local CLIA certified lab. Non-US-labs Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
</tr>
<tr>
<td>Population Pharmacokinetics</td>
<td>0.5mL EDTA per time point</td>
<td>PKW0291</td>
<td>Transfer all plasma to one pre-labeled 2ml cryovial and freeze immediately after processing at -70°C or colder</td>
<td>BLD/EDT/PL1 LDMS time/unit:0/pre or ___/RPD</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>EVERY 8 WEEKS until end of Rifampin Therapy (±2 week)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
</tr>
<tr>
<td><strong>M/C Ratio Assay</strong></td>
</tr>
<tr>
<td><strong>Pregnancy Test</strong></td>
</tr>
<tr>
<td><strong>HIV-1 RNA PCR Abbott Real Time HIV1</strong></td>
</tr>
<tr>
<td><strong>Lymphocyte subsets</strong></td>
</tr>
<tr>
<td>Confirm Suspected Virologic Failure</td>
</tr>
<tr>
<td>-----------------------------------</td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
</tr>
</tbody>
</table>
### VIROLOGIC FAILURE

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Sample Type</th>
<th>Code</th>
<th>Storage/Processing</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>M/C Ratio Assay</td>
<td>4.0 ml Urine</td>
<td>SPW0427</td>
<td>URN/NON/URN</td>
<td>Aliquot urine into 2 aliquots at 2.0mL each. Freeze at –20°C or colder.</td>
</tr>
<tr>
<td>PBMCs/Plasma for storage for future Virology studies</td>
<td>6.5 ml EDTA Blood</td>
<td>F3006</td>
<td>BLD/EDT/PL2 BLD/EDT/CEL/DMS</td>
<td>Freeze 3x1 ml aliquots plasma at –70°C or colder. Freeze PBMCs viably in 5X10^6 cells/0.5 ml aliquots.</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HIV-1 RNA PCR Abbott Real Time HIV1</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>BLD/EDT/PL2</td>
<td>US labs - Can be performed at any local CLIA certified lab. Non-US labs - Must be performed at VQA approved lab.</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0ml EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS (Not a mandatory entry)</td>
</tr>
<tr>
<td>Test Type</td>
<td>Sample Type</td>
<td>Code</td>
<td>Volume</td>
<td>Additional Instructions</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------</td>
<td>------</td>
<td>--------</td>
<td>-----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Hematology</td>
<td>1.0ml EDTA Blood</td>
<td>PE6811</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1.0ml NON or SST Blood</td>
<td>PE6816</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Pregnancy Test</td>
<td>Urine</td>
<td>F0847</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HIV-1 RNA PCR</td>
<td>3.0mL EDTA Blood</td>
<td>F3006 (and F3109 if results not reported in LDMS)</td>
<td>Freeze ≥ 1 x 1 ml aliquots at −70°C or colder.</td>
<td>BLD/EDT/PL2</td>
</tr>
<tr>
<td>Lymphocyte subsets</td>
<td>1.0mL EDTA Blood</td>
<td>LBW0054</td>
<td>None</td>
<td>BLD/EDT/BLD if entered into LDMS <em>(Not a mandatory entry)</em></td>
</tr>
</tbody>
</table>
## Section 30 (PARTICIPANTS WHO START RIFAMPIN AS PART OF TREATMENT FOR ACTIVE TB DURING STUDY): Evaluations by Visit - refer to processing instructions

### Shipping Information & Addresses

ACTG/IMPAACT Laboratory Manual, Shipping Information and other useful information:  
http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx

<table>
<thead>
<tr>
<th>US SITES</th>
<th>AFRICA SITES</th>
<th>SOUTH AMERICA SITES</th>
<th>THAILAND SITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABBOTT HIV-1 RNA</td>
<td>Ship in real time to local approved lab</td>
<td>Ship in real time to local approved lab</td>
<td>Ship in real time to local approved lab</td>
</tr>
<tr>
<td>M/C RATIO</td>
<td>Ship in real time to Quest Diagnostics</td>
<td>Ship in real time to CLS</td>
<td>Ship in real time to Quest Diagnostics Lab (33)</td>
</tr>
<tr>
<td>INTENSIVE PK</td>
<td>Ship in real time to UAB</td>
<td>Ship in real time to BRI (Pass Through. Final Destination UAB)</td>
<td>Ship in real time to BRI (Pass Through. Final Destination UAB)</td>
</tr>
<tr>
<td>POPULATION PK</td>
<td>Batch ship to UAB every 24 weeks.</td>
<td>Batch ship to BRI every 24 weeks. (Pass Through. Final Destination UAB)</td>
<td>Batch ship to BRI every 24 weeks. (Pass Through. Final Destination UAB)</td>
</tr>
</tbody>
</table>
| PBMCs / Plasma for storage | NIAID Sites: Store locally and ship in batches to BRI as directed  
NICHD Sites: Store locally and ship in batches to Fisher as directed | NIAID Sites: Store locally and ship in batches to BRI as directed  
NICHD Sites: Store locally and ship in batches to Fisher as directed | NIAID Sites: Store locally and ship in batches to BRI as directed  
NICHD Sites: Store locally and ship in batches to Fisher as directed |
**Section 30 (PARTICIPANTS WHO START RIFAMPIN AS PART OF TREATMENT FOR ACTIVE TB DURING STUDY): Evaluations by Visit - refer to processing instructions**

### Shipping Information & Addresses

**ACTG / IMPAACT Laboratory Manual, Shipping Information and other useful information:**
http://www.hanc.info/labs/labresources/Pages/informationActgImpaactLabs.aspx

<table>
<thead>
<tr>
<th>University of Alabama at Birmingham</th>
<th>Research Institute</th>
<th>CLS Africa</th>
<th>FioCruz, Brazil</th>
<th>PHPT Lab, Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Edward Acosta Attn: Kedria Walker</td>
<td>Dr. Lisa Frenkel Attn: Dr. Ingrid Beck</td>
<td>Dr. Wendy Stevens Central Laboratory Services</td>
<td>Dr Marizaa G. Morgado / Deise Luci Rufino dos Santo</td>
<td>Dr. Nicole Ngo-Giang-Huong / Laddawan Laomanit</td>
</tr>
<tr>
<td>University of Alabama at Birmingham Division of Pharmacology 1670 University Blvd. Volker Hall Rm 270 Birmingham, AL 35294-0019</td>
<td>Seattle Children’s Research Institute – Frenkel Lab 307 Westlake Ave N Seattle WA 98109 USA</td>
<td>Spencer Lister Building 4th Floor, NHLScomplex Cnr De Korte and Hospital Street Braamfontein, Johannesburg, 2000 South Africa</td>
<td>Pavilhao Leonidas Deane, 4th Floor Avenida Brazil, 4365 Manguinhos, RJ 21045-900 Brazil</td>
<td>PHPT Laboratory 548 Chiang Mai-Lamphun Rd Nong Hoi Muang, Chiang Mai 50000 Thailand</td>
</tr>
<tr>
<td>Phone: 205-975-2461 Fax: 205-934-6201</td>
<td>Phone: 206-884-3440 Fax: 206-884-7311 Email: <a href="mailto:Frenkellabshipments@seattlechildrens.org">Frenkellabshipments@seattlechildrens.org</a></td>
<td>Phone: 011-27 11 489-9765 Fax: 011-27-11-489-8554 Email: <a href="mailto:wendy.stevens@nhls.ac.za">wendy.stevens@nhls.ac.za</a></td>
<td>Phone: 011-55-21-25984583 Fax: 011-55-21-22801589 Email: <a href="mailto:mmorgado@ioc.fiocruz.br">mmorgado@ioc.fiocruz.br</a> Or: <a href="mailto:camposmello@hotmail.com">camposmello@hotmail.com</a></td>
<td>Phone: +66-53-894-431 Fax: +66-53-894-220 Email: <a href="mailto:laddawan@phpt.org">laddawan@phpt.org</a></td>
</tr>
</tbody>
</table>

**Send a copy of PKW form to the PK testing lab when samples are shipped.**
### Shipping Information & Addresses

<table>
<thead>
<tr>
<th>Quest Diagnostics</th>
<th>BRI Repository</th>
<th>Monogram Biosciences</th>
<th>Fisher Repository (NICHD Sites)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quest Diagnostics Incorporated Dr. William Meyer Attn: Denise Bopst- Special Studies 1901 Sulphur Spring Road Baltimore MD 21227 TEL: 410-536-1713 FAX: 410-536-1474 Email: <a href="mailto:DGXBaltimoreSpecialStudiesDepartment@questdiagnostics.com">DGXBaltimoreSpecialStudiesDepartment@questdiagnostics.com</a> LDMS Lab: 33</td>
<td>Attn: John C. Ward Biomedical Research Institute (BRI) 9410 Key West Avenue, First Floor Rockville, MD20850 Phone (301)881-7636 Fax (301)770-9811 Email: <a href="mailto:brirepository@afbr-bri.com">brirepository@afbr-bri.com</a> LDMS Lab: 999</td>
<td>Attn: Tim Persyn Monogram Biosciences 345 Oyster Point Blvd. So. San Francisco, CA94080 Phone: 650-624-4271 Fax: 650-624-4457 Email: <a href="mailto:Persynt@labcorp.com">Persynt@labcorp.com</a></td>
<td>Fisher Bioservices C/o Maria Wolff Biological Services Division 625 Lofstrand Lane Rockville, MD 20850 Tel: 301-340-1620 Fax: 301-838-9753 Email: <a href="mailto:Maria.wolff@thermofisher.com">Maria.wolff@thermofisher.com</a> <a href="http://www.fishersci.com/">http://www.fishersci.com/</a> LDMS Lab: 243</td>
</tr>
</tbody>
</table>
Instructions for BRI ‘Pass-Through’ Specimens
(Additional instructions can be found in Section 6.5 of the MOP)

This process is to be used ONLY for the following laboratories and specimens:

- Intensive PK assays (ALL non-US Sites)
- Population PK assays (ALL non-US Sites)

When creating the LDMS shipping batch select the appropriate testing laboratory as the shipment destination based on the P1093 LPC:

- Intensive PK assays – UAB - Lab code: 191
- Population PK assays – UAB - Lab code: 191

IMPORTANT: When preparing the LDMS shipment as a ‘pass-through’, DONOT select lab 999 (BRI) as the destination. BRI is not the final destination for any ‘pass-through’ specimens!

Pack the specimens as you normally would and address the Safety Pack\World Courier Secondary Packaging to the final shipment destination of Lab code: 191 (see above)

Be sure to include the correct “Pass Through” shipping notification inside the box addressed to BRI. The shipping notifications can be found in Appendix II, III and IV of the MOPs.

Be sure to send the LDMS shipping manifest, diskette or email file and any necessary CRFs to the testing lab.

Place this fully packed and addressed shipment within a box and address the outer box to the BRI repository:
## Section 31: Revision History

<table>
<thead>
<tr>
<th>Protocol Version</th>
<th>LPC Change Date</th>
<th>Page(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>18AUG2014</td>
<td>throughout</td>
<td>Sections 11-37 added to LPC.</td>
</tr>
<tr>
<td>3.0</td>
<td>18AUG2014</td>
<td>throughout</td>
<td>Edited shipping location from UNC to University of Washington Lab 238</td>
</tr>
<tr>
<td>3.0</td>
<td>18AUG2014</td>
<td>throughout</td>
<td>Added NICHD site shipping to Thailand sites</td>
</tr>
<tr>
<td>3.0</td>
<td>18AUG2014</td>
<td>p.43</td>
<td>Corrected Stage II Week 8 visit specimen collections</td>
</tr>
<tr>
<td>3.0</td>
<td>18AUG2014</td>
<td>throughout</td>
<td>Edited PK specimen processing</td>
</tr>
<tr>
<td>3.0</td>
<td>18AUG2014</td>
<td>throughout</td>
<td>Corrected Lymphocyte subset CRF</td>
</tr>
<tr>
<td>3.0</td>
<td>07AUG2015</td>
<td>8</td>
<td>Edited laboratory for South American sites to ship Screening genotyping resistance specimen to Fiocruz</td>
</tr>
<tr>
<td>3.0</td>
<td>10AUG2015</td>
<td>31,58,86,113,139</td>
<td>Edited BRI email to <a href="mailto:brirepository@afbr-bri.com">brirepository@afbr-bri.com</a></td>
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<tr>
<td>3.0</td>
<td>10AUG2015</td>
<td>31,58,86,113,139</td>
<td>Edited Quest Diagnostics Baltimore email to <a href="mailto:DGXBaltimoreSpecialStudiesDepartment@questdiagnostics.com">DGXBaltimoreSpecialStudiesDepartment@questdiagnostics.com</a></td>
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<tr>
<td>3.0</td>
<td>10AUG2015</td>
<td>10,13,28,33,39,42,56,60,67,70,84,88,95,97,111,115</td>
<td>Edited specimen processing for HLA B-5701 typing for specimens to be shipped to Quest Diagnostics. Included Quest requirement of 3mL.</td>
</tr>
<tr>
<td>3.0</td>
<td>10AUG2015</td>
<td>7,36,63,90</td>
<td>Edited M/C Ratio Lab to Siriraj Lab as stated elsewhere in document.</td>
</tr>
<tr>
<td>3.0</td>
<td>10AUG2015</td>
<td>throughout</td>
<td>Clarified HIV- RNA testing lab requirements for US and NON-US labs.</td>
</tr>
<tr>
<td>3.0</td>
<td>10AUG2015</td>
<td>3,122</td>
<td>Edited title of Appendix IG to be compliant with CM#2</td>
</tr>
<tr>
<td>3.0</td>
<td>10 Aug2015</td>
<td>9, 38, 66, 94</td>
<td>Clarified that screening specimen is needed in addition when VF resistance (genotyping) specimen is shipped to Lab 238</td>
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<tr>
<td>3.0</td>
<td>10AUG2015</td>
<td>7, 37, 64, 92</td>
<td>Clarified that M/C ratio specimens may be shipped on dry ice or frozen ice packs depending on preference of testing lab.</td>
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<tr>
<td>3.0</td>
<td>08FEB2016</td>
<td>31,58,86,113,139</td>
<td>Updated BRI shipping address.</td>
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<tr>
<td>4.0</td>
<td>12JUN2016</td>
<td>throughout</td>
<td>Updated entire LPC to be compliant with protocol version 4.0</td>
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<tr>
<td>4.0</td>
<td>12JUN2016</td>
<td>33,63,93,123,140,159</td>
<td>Updated Monogram contact person, email, and phone number.</td>
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<td>4.0</td>
<td>12JUN2016</td>
<td>12,13,32,42,62,73,92,103,123,131,139,148,158</td>
<td>Added comment to send a copy of the pkw form to the PK testing lab when samples are shipped.</td>
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<tr>
<td>4.0</td>
<td>12JUN2016</td>
<td>10,32,39,62,92,122,138</td>
<td>Shipping directions for PBMC/plasma for storage edited to “as directed”.</td>
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<tr>
<td>5.0</td>
<td>01OCT2018</td>
<td>throughout</td>
<td>Edited according to Protocol Version 5.0 and Corrected CM#1</td>
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<tr>
<td>5.2</td>
<td>23OCT2018</td>
<td>3,5,7,10,13,15,18,20</td>
<td>Edited to allow Kenya and Uganda sites to use local lab for Screening Genotyping testing.</td>
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<tr>
<td>5.2</td>
<td>23OCT2019</td>
<td>Various; 9, 36, 55, 64, 84, 92, 111, 123, 142</td>
<td>Removed address listed for Richet labs; MicroAlbumin/Creatinine Ratio sent to Quest for all South American sites</td>
</tr>
<tr>
<td>5.3</td>
<td>20Feb2020</td>
<td>29,56,85,112,124,143</td>
<td>Address for shipping to Dr. Frenkels’ lab in Seattle updated.</td>
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<tr>
<td>5.4</td>
<td>27Feb2020</td>
<td>29,56,85,112,124,143</td>
<td>Zip code for shipping to Dr. Frenkels’ lab in Seattle updated.</td>
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</tbody>
</table>

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**Notes:**
- **LPC Edited Date:** 27Feb2020
- **Protocol Date:** 12JUL2018