Draft Guidance on
Cobicistat; Elvitegravir; Emtricitabine; Tenofovir Disoproxil Fumarate

This draft guidance, once finalized, will represent the Food and Drug Administration's (FDA's) current thinking on this topic. It does not create or confer any rights for or on any person and does not operate to bind the FDA or the public. You can use an alternative approach if the approach satisfies the requirements of the applicable statutes and regulations. If you want to discuss an alternative approach, contact the Office of Generic Drugs.

Active Ingredient: Cobicistat; Elvitegravir; Emtricitabine; Tenofovir disoproxil fumarate

Dosage Form; Route: Tablet; oral

Recommended Studies: Two studies

1. Type of study: Fasting
   Design: Single-dose, two-way crossover in vivo
   Strength: 150 mg; 150 mg; 200 mg; 300 mg tablet
   Subjects: Healthy males and non-pregnant females, general population
   Additional comments: 1) Women of child-bearing potential should be advised to use an effective method of contraception while using (cobicistat, elvitegravir, emtricitabine, and tenofovir disoproxil fumarate) combination drug tablet, 2) Females should not be lactating, 3) The study population should consist of healthy subjects at least 18 years old with body mass index (BMI) between 19 and 30 kg/m², in good general health, with no clinically relevant health conditions identified by a detailed medical history, full physical examination, and laboratory screening, and not on any of the drugs or herbal products contraindicated on the innovator product labeling. 4) At a minimum, prescreening laboratory evaluation should include pregnancy testing for women, and, for all subjects, a complete blood count as well as testing for liver function, acute or chronic active hepatitis status, hepatitis antigen carrier status, illicit drug use, and renal function. 5) Renal function testing should include creatinine clearance, urine glucose, and urine protein. 6) To minimize risks, the following additional, minimum safety monitoring (prior to dosing and after each dosing period) should be conducted during the BE trial: pregnancy test for women, liver function tests, and renal function testing, including creatinine clearance, urine glucose, and urine protein.

2. Type of study: Fed
   Design: Single-dose, two-way crossover in vivo
   Strength: 150 mg; 150 mg; 200 mg; 300 mg tablet
   Subjects: Healthy males and non-pregnant females, general population
   Additional comments: Same as the fasting study comments

Analytes to measure (in appropriate biological fluid): Cobicistat, elvitegravir, emtricitabine, and tenofovir in plasma

Recommended Dec 2014
Bioequivalence based on (90% CI): Cobicistat, elvitegravir, emtricitabine, and tenofovir

Waiver request of in vivo testing: Not applicable (N/A)

Dissolution test method and sampling times: The dissolution information for this drug product can be found on the FDA-Recommended Dissolution Methods website available to the public at the following location: http://www.accessdata.fda.gov/scripts/cder/dissolution/. Conduct comparative dissolution testing on 12 dosage units each of all strengths of the test and reference products. Specifications will be determined upon review of the abbreviated new drug application (ANDA).