

Contains Nonbinding Recommendations
Draft Guidance on Amlodipine; Hydrochlorothiazide; Valsartan

This draft guidance, once finalized, will represent the Food and Drug Administration's (FDA's) current thinking on this topic.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 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: Amlodipine; Hydrochlorothiazide; Valsartan

Form/Route: Tablets /Oral

Recommended studies: 2 studies

1. Type of study: Fasting
Design: Single-dose, two-way crossover *in-vivo*
Strength: 10 mg/25 mg/320 mg
Subjects: Healthy males and nonpregnant females, general population.
Additional Comments:

2. Type of study: Fed
Design: Single-dose, two-way crossover *in-vivo*
Strength: 10 mg/25 mg/320 mg
Subjects: Healthy males and nonpregnant females, general population.
Additional Comments:

Analytes to measure (in appropriate biological fluid): Amlodipine, Hydrochlorothiazide, Valsartan in plasma

Bioequivalence based on (90% CI): Amlodipine, Hydrochlorothiazide, Valsartan

Waiver request of in-vivo testing: 5 mg/12.5 mg/160 mg, 10 mg/12.5 mg/160 mg, 5 mg/25 mg/160 mg and 10 mg/25 mg/160 mg on (i) acceptable bioequivalence studies on the 10 mg/25 mg/320 mg, (ii) acceptable dissolution testing across all strengths, and (iii) proportional similarity in the formulations across all strengths

Dissolution test method and sampling times:

Please note that a **Dissolution Methods Database** is available to the public at the OGD website at <http://www.accessdata.fda.gov/scripts/cder/dissolution/>. Please find the dissolution information for this product at this website. Please 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 application.