

## Draft Guidance on Hydrocodone Bitartrate; Ibuprofen

This draft guidance, once finalized, will represent the Food and Drug Administration's (FDA's) current thinking on this topic.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:** Hydrocodone bitartrate; Ibuprofen

**Dosage Form; Route:** Tablet; oral

**Recommended Studies:** Two studies

1. Type of study: Fasting  
Design: Single-dose, two-way crossover in vivo  
Strength: 7.5 mg/200 mg  
Subjects: Healthy males and nonpregnant females, general population  
Additional comments: None

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2. Type of study: Fed  
Design: Single-dose, two-way crossover in vivo  
Strength: 7.5 mg/200 mg  
Subjects: Healthy males and nonpregnant females, general population  
Additional comments: None

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**Analytes to measure (in appropriate biological fluid):** Hydrocodone and ibuprofen in plasma

**Bioequivalence based on (90% CI):** Hydrocodone and ibuprofen

**Waiver request of in vivo testing:** 2.5 mg/200 mg, 5 mg/200 mg, and 10 mg/200 mg based on (i) acceptable bioequivalence study on the 7.5 mg/200 mg, (ii) proportional similarity across all strengths, and (iii) acceptable in vitro dissolution testing of all strengths.

The firm should also submit suitability petitions for strengths (Eq 2.5 mg/200 mg, 5 mg/200 mg, and 10 mg/200 mg), which the manufacturer of the reference product does not offer.

**Dissolution test method and sampling times:** A Dissolution Methods Database is available to the public at the OGD website at <http://www.accessdata.fda.gov/scripts/cder/dissolution/>. The dissolution information for this product is available at this website. 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.