Contains Nonbinding Recommendations

Guidance on Hydrocodone bitartrate; Ibuprofen

This guidance represents the current thinking of the Food and Drug Administration (FDA, or the Agency) on this topic. It does not establish any rights for any person and is not binding on FDA or the public. You can use an alternative approach if it satisfies the requirements of the applicable statutes and regulations. 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:

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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:

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 tablets are eligible based on (i) acceptable bioequivalence studies on the 7.5 mg/200 mg strength, (ii) proportional similarity of the formulations across all strengths, and iii) acceptable in vitro dissolution testing of all strengths.

Suitability petitions should be submitted for strengths (Eq 2.5 mg/200 mg, 5 mg/200 mg, and 10 mg/200 mg) which the reference product does not contain.

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).