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Draft Guidance on Lemborexant

November 2021

This draft guidance, when finalized, will represent the current thinking of the Food and Drug Administration (FDA, or the Agency) on this topic.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.

This guidance, which interprets the Agency's regulations on bioequivalence at 21 CFR part 320, provides product-specific recommendations on, among other things, the design of bioequivalence studies to support abbreviated new drug applications (ANDAs) for the referenced drug product. FDA is publishing this guidance to further facilitate generic drug product availability and to assist the generic pharmaceutical industry with identifying the most appropriate methodology for developing drugs and generating evidence needed to support ANDA approval for generic versions of this product.

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This is a new draft product-specific guidance for industry on generic lemborexant.

Active Ingredient: Lemborexant

Dosage Form; Route: Tablet; oral

Recommended Studies: Two studies

1. Type of study: Fasting
   Design: Single-dose, two-treatment, two-period, crossover in vivo
   Strength: 10 mg
   Subjects: Males and non-pregnant, non-lactating females, general population
   Additional comments: Exclude subjects with narcolepsy. Exclude subjects with compromised respiratory conditions (e.g., chronic obstructive pulmonary disease and obstructive sleep apnea). Subjects should be instructed not to engage in potentially hazardous activities requiring complete mental alertness, such as driving a motor vehicle or operating machinery until they have completely returned to their level of baseline cognitive functioning after taking lemborexant.

2. Type of study: Fed
Design: Single-dose, two-treatment, two-period, crossover in vivo
Strength: 10 mg
Subjects: Males and non-pregnant, non-lactating females, general population
Additional comments: See comments above

Analyte to measure: Lemborexant in plasma

Bioequivalence based on (90% CI): Lemborexant

Waiver request of in vivo testing: 5 mg strength based on (i) acceptable bioequivalence studies on the 10 mg strength, (ii) acceptable in vitro dissolution testing of both strengths, (iii) proportional similarity of the formulations between both strengths.

Dissolution test method and sampling times: The dissolution information for this drug product can be found in the FDA's Dissolution Methods database, http://www.accessdata.fda.gov/scripts/cder/dissolution/. Conduct comparative dissolution testing on 12 dosage units for both strengths of each of the test and reference products. Specifications will be determined upon review of the abbreviated new drug application.

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