

Draft Guidance on Bosentan

November 2025

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Active Ingredient: Bosentan

Dosage Form: Tablet

Route: Oral

Strengths: 62.5 mg, 125 mg

Recommended Study: One in vivo bioequivalence study with pharmacokinetic endpoints

1. Type of study: Fasting
Design: Single-dose, two-treatment, two-period crossover in vivo
Strength: 125 mg
Subjects: Healthy males and healthy females not of reproductive potential
Additional comments: Bosentan tablet is under a Risk Evaluation and Mitigation Strategy (REMS) with Elements to Assure Safe Use (ETASU), which restricts its use. All pertinent elements of the REMS/ETASU must be incorporated into the protocol and informed consent.

Analyte to measure: Bosentan in plasma

Bioequivalence based on (90% CI): Bosentan

Waiver request of in vivo testing: 62.5 mg strength based on (i) an acceptable bioequivalence study on the 125 mg strength, (ii) acceptable in vitro dissolution testing of both strengths, and (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 each of both strengths of the test product and reference listed drug (RLD).¹ Specifications will be determined upon review of the abbreviated new drug application.

Document History: Recommended September 2010; Revised March 2012, October 2024, November 2025

Unique Agency Identifier: PSG_021290

¹ If the RLD is not available, refer to the most recent version of the guidance for industry *Referencing Approved Drug Products in ANDA Submissions*.