Contains Nonbinding Recommendations

Guidance on Ramipril

This guidance represents 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: Ramipril

Form/Route: Capsule/ Oral

Recommended studies: 2 studies

1. Type of study: Fasting
   Design: Single-dose, two-treatment, two-period crossover *in-vivo*
   Strength: 10 mg
   Subjects: Normal healthy males and females, general population
   Additional Comments: Female subjects enrolled in the BE studies should not be pregnant, and if applicable, should practice abstention or contraception during the study.

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2. Type of study: Fed
   Design: Single-dose, two-treatment, two-period crossover *in-vivo*
   Strength: 10 mg
   Subjects: Normal healthy males and females, general population
   Additional comments: Please see comment above.

Analytes to measure (in appropriate biological fluid): Ramipril and the metabolite, ramiprilat in plasma.

Bioequivalence based on (90% CI): Ramipril.
If ramipril can be reliably measured, a confidence interval approach for bioequivalence determination should be used for ramipril. If ramipril cannot be reliably measured, a confidence interval approach for bioequivalence determination should be used for ramiprilat.

Waiver request of in-vivo testing: 1.25 mg, 2.5 mg and 5 mg based on (i) acceptable bioequivalence studies on the 10 mg strength, (ii) proportional similarity of the formulations across all strengths, and (iii) acceptable in vitro dissolution testing of 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.fda.gov/cder/ogd/index.htm. Please find the dissolution information for this product at this website.