Creative Enzymes®

hydantoin racemase

Cat. No. EXWM-5437

Lot. No. (See product label)

Introduction

Description	This enzyme, along with N-carbamoylase (EC 3.5.1.77 and EC 3.5.1.87) and hydantoinase, forms part of the reaction cascade known as the "hydantoinase process", which allows the total conversion of D,L-5-monosubstituted hydantoins into optically pure D- or L-amino acids. The enzyme from Pseudomonas sp. (HyuE) has a preference for hydantoins with aliphatic substituents, e.g. D- and L-5-(2-methylthioethyl)hydantoin, whereas that from Arthrobacter aurescens shows highest activity with arylalkyl substituents, especially 5-benzylhydantoin, at the 5-position. In the enzyme from Sinorhizobium meliloti, Cys76 is responsible for recognition and proton retrieval of D-isomers, while Cys181 is responsible for L-isomer recognition and racemization.
Synonyms	5'-monosubstituted-hydantoin racemase; HyuA; HyuE

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 5.1.99.5
Reaction	D-5-monosubstituted hydantoin = L-5-monosubstituted hydantoin
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage	Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.