

## 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 °C for short term. For long term storage, store it at -20 °C~-80 °C.