Creative Enzymes®

Amidase from Pseudomonas aeruginosa, Recombinant

Cat. No. NATE-0809

Lot. No. (See product label)

Introduction

Description The amidase from Pseudomonas aeruginosa catalyzes the hydrolysis of a small range of short aliphatic amides. Each amidase monomer is formed by a globular four-layer αββα sandwich domain with an additional 81-residue long C-terminal segment. This enzyme belongs to the family of hydrolases, those acting on carbon-nitrogen bonds other than peptide bonds, specifically in linear amides.

Applications The importance of these hydrolases in biotechnology is growing rapidly, because their potential applications span through chemical and pharmaceutical industries as well as in bioremediation. Immobilized amidase can be used efficiently for production of acrylic acid from acrylamide, thus converting a toxic ambient contaminant into widely used industrial raw material. Amidases are potential treatments for human immunodeficiency virus and malaria. They may be used to eliminate metal ions in wastewater.

Synonyms acylamidase; acylase (misleading); amidohydrolase (ambiguous); deaminase (ambiguous); fatty acylamidase; N-acetylaminohydrolase (ambiguous); amidase; EC 3.5.1.4; acylamide amidohydrolase

Product Information

Species Pseudomonas aeruginosa

Source E. coli

Form Solution in 50% glycerol containing 7 mM 2-mercaptoethanol and phosphate buffer salt.

EC Number EC 3.5.1.4

CAS No. 9012-56-0

Activity >200 units/mg protein (biuret)

Concentration 14 mg/ml

Unit Definition One unit will convert 1.0 µmole of acetamide and hydroxylamine to acetohydroxamate and ammonia per min at pH 7.2 at 37 °C.

Storage and Shipping Information

Storage Store at -20°C