Creative Enzymes®

Nitrile hydratase from Rhodopseudomonas palustris, Recombinant

Cat. No. NATE-1218

Lot. No. (See product label)

Introduction

Description	In enzymology, nitrile hydratases (NHases; EC 4.2.1.84) are mononuclear iron or non-corrinoid cobalt enzymes that catalyse the hydration of diverse nitriles to their corresponding amides: R-C≡N + H2O → R-C(O)NH2.
Synonyms	Nitrilase; 3-cyanopyridine hydratase; NHase; L-NHase; H-NHase; acrylonitrile hydratase; aliphatic nitrile hydratase; nitrile hydro-lyase; aliphatic-amide hydro-lyase (nitrile-forming)

Product Information

Source	Rhodopseudomonas palustris CGA009
Form	Supplied in 3.2 M ammonium sulphate
EC Number	EC 4.2.1.84
CAS No.	82391-37-5
Molecular Weight	25878.9 Da (α-subunit), 24204.3 Da (β-subunit)
Purity	> 95 % as judged by SDS-PAGE
Activity	21.97 U/mg
Concentration	112.05 U/ml
Unit Definition	One unit is defined as the amount of enzyme required to release 1 μmol of methacrylamide from methocrylonitrile (10 mM) per minute in 100 mM KH2PO4 buffer, pH 7.0, at 25°C, as measured at 224 nm.

Usage and Packaging

Preparation Instructions	Agitate vial sufficiently to fully homogenise enzyme precipitate before use.

Storage and Shipping Information

Storage	Store at 4°C (shipped at room temperature)