

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: $R-C\equiv N + H_2O \rightarrow R-C(O)NH_2$.

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 μ mol of methacrylamide from methacrylonitrile (10 mM) per minute in 100 mM KH_2PO_4 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)