Creative Enzymes®

# Nitrile hydratase from Rhodococcus erythropolis, Recombinant

*Cat. No. NATE-1217*

*Lot. No.* (See product label)

## Introduction

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| ***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

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| ***Source*** | Rhodococcus erythropolis AJ270 |
| ***Form*** | Supplied as a freeze-dried CFE powder. |
| ***EC Number*** | EC 4.2.1.84 |
| ***CAS No.*** | 82391-37-5 |
| ***Molecular Weight*** | 23487.3 Da (α-subunit), 25159.4 Da (β-subunit) |
| ***Purity*** | > 95 % as judged by SDS-PAGE |
| ***Activity*** | > 4 U/mg (freeze-dried CFE) |
| ***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

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

## Storage and Shipping Information

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| ***Storage*** | Store at -20°C (shipped at ambient temperature) |