

## Nitrilase (Crude Enzyme)

Cat. No. NATE-1842

Lot. No. (See product label)

### Introduction

#### Description

Nitrilase enzymes catalyse the hydrolysis of nitriles to carboxylic acids and ammonia, without the formation of "free" amide intermediates. Nitrilases are involved in natural product biosynthesis and post translational modifications in plants, animals, fungi and certain prokaryotes. Nitrilases can also be used as catalysts in preparative organic chemistry. Among others, nitrilases have been used for the resolution of racemic mixtures. Nitrilase should not be confused with nitrile hydratase (nitrile hydro-lyase; EC 4. 2. 1. 84) which hydrolyses nitriles to amides. Nitrile hydratases are almost invariably co-expressed with an amidase, which converts the amide to the carboxylic acid, consequently it can sometimes be difficult to distinguish nitrilase activity from nitrile hydratase plus amidase activity. This product with the indicated enzyme activity was briefly purified from engineered E. coli.

#### Applications

synthesis; industry;

#### Synonyms

acetonitrilase; benzonitrilase

### Product Information

#### Source

E. coli

#### Appearance

Clear to translucent yellow solution

#### EC Number

EC 3.5.5.1

#### CAS No.

9024-90-2

#### Activity

Undetermined

#### Reaction

a nitrile + 2H<sub>2</sub>O = a carboxylate + NH<sub>3</sub>

#### Notes

Since this product needs to be freshly prepared, it will take about 2 weeks after you confirm the order. Each time of the freeze-thawing may cause partial inactivation. Therefore, it should be dispensed as required and stored at -20 ° C or lower. With the preservation of the extension of time, the enzyme activity will decline to a certain extent, so the product should be used as soon as possible. This product may have turbidity or precipitation in the production and preservation process, it can be mixed after melting and will not affect the normal use. This product is limited to scientific research use, shall not be used for clinical diagnosis or treatment, shall not be used for food or medicine, shall not be stored in ordinary residential. For your safety and health, please wear an experimental suit and wear disposable gloves.

### Usage and Packaging

#### Package

100ml

### Storage and Shipping Information

#### Storage

at -20 °C or lower, for at least 1 month

