

## Nitrilase (NIT)

**Cat. No.** NIT-09    **Lot. No.** (See product label)

### SPECIFICATION

#### Product Overview

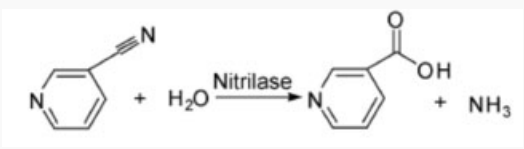
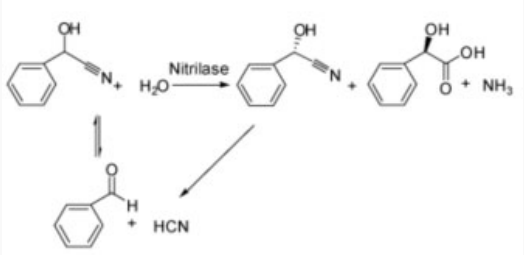
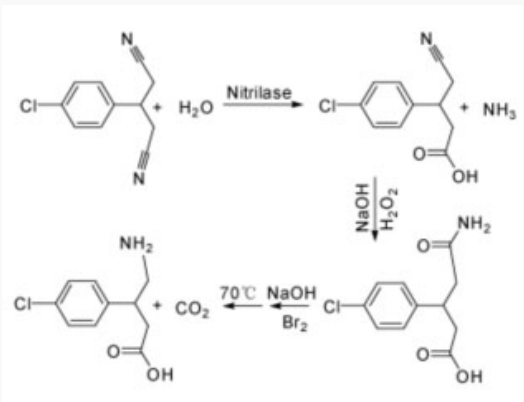
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b>  | NITs: Directly convert cyanide group to carboxyl group, to prepare carboxylic acid, which is widely used in medicine, environmental protection, chemical industry, food additive, textile, agricultural production and other fields. NIT is a useful tool to catalyze the synthesis of chiral carboxylic acids through regio- and stereoselective hydrolysis of a wide range of aliphatic and aromatic nitriles.                                                               |
| <b>Applications</b> | 1. Normally, the reaction system should include substrate, buffer solution (optimum reaction pH) and NIT. 2. All the NITs can be tested respectively in the reaction system above or with the NIT Screening Kit. 3. All kinds of NITs corresponding to various optimum reaction conditions should be studied individually. 4. High concentration Substrate or product with may inhibit NIT's activity. However, the inhibition can be relieved by batch addition of substrate. |
| <b>Notes</b>        | Never contact with extreme conditions such as: high temperature, high/low pH and high concentration organic solvent.                                                                                                                                                                                                                                                                                                                                                           |
| <b>Storage</b>      | Keep 2 years below -20 centigrade.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Advantages</b>   | 1. High substrate specificity. 2. High conversion. 3. Less by-products. 4. Mild reaction conditions. 5. Environmentally friendly.                                                                                                                                                                                                                                                                                                                                              |

### GENE INFORMATION

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|                             |                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Official Symbol</b>      | NIT                                                                                                                           |
| <b>Synonyms</b>             | Nitrilase; NIT                                                                                                                |
| <b>Application Examples</b> |  <p>Synthesis of nicotinic acid</p>         |
| <b>Application Examples</b> |  <p>Synthesis of (R)-(-)-mandelic acid</p> |
| <b>Application Examples</b> |                                           |

## Synthesis of baclofen

Application  
Examples

## Synthesis of glycolic acid

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