

Data Sheet

Eucodis Nitrile Hydratases

Cat. No.	Formulation	Sales Unit
ENH Kit	lyophilized powder	50 - 200 mg

For *in vitro* use only.
Store at -20°C

Applications

Nitrile hydratases can be utilized to convert nitriles into their corresponding amides

Form

Technical grade
Lyophilized cell extract
White to tan powder
Protein content ~50-70 %

Specifications

Name	Nitrile hydratase Kit
E.C.	4.2.1.84
Origin	prokaryotic
Source	recombinant, <i>E.coli</i>
Specific	
Activity	≥10 U/mg powder

Function

Nitrile hydratases catalyze the hydration of nitriles to their corresponding amides.

Currently nitrile hydratases are used to produce acrylamide from acrylonitrile. Additional applications are e.g. in the removal of nitriles from industrial waste water.

Usage

Eucodis nitrile hydratase lyophilizates are partly soluble in water. If required, remove insoluble material by centrifugation. The enzymes should be protected from high temperatures and excessive moisture.

Reconstitute the content of one vial in 4-10 mL water or 20 mM potassium phosphate buffer, pH 7.5
Store at -20°C after reconstitution.

Activity

Specific activities have been determined using acrylonitrile; see batch-specific CoA. One unit corresponds to the conversion of 1 μmol nitrile to the corresponding amide per minute at 25°C.

Additionally, Eucodis nitrile hydratases have been tested for hydrolysis of the following substrates:

- cyclohexanecarbonitrile,
- cinnamitrile,
- benzonitrile,
- methacrylonitrile,
- pivalonitrile

Example:

