

# Data Sheet



## Isoamylase (*Pseudomonas amyloclavata*)

Cat. No.	Formulation	Sales Unit
EIA01	Suspension in Ammonium sulfate	1 MU – 5 MU, bulk

For research use only.  
Store at 4-8°C.

### Application

*P. amyloclavata* isoamylase catalyzes the hydrolysis of O-glycosyl bonds of branches in carbohydrates like glycogen or amylopectin. The hydrolysis of the (1-6)- $\alpha$ -D-glucosidic branch linkages is used industrially to create linear carbohydrates with more defined physical and chemical properties, e.g. for starch debranching.

### Form

White suspension

### Specifications

Name	Isoamylase
Synonyms	glycogen alpha-1,6-glycano-hydrolase
E.C.	3.2.1.68
Origin	prokaryotic, <i>P. amyloclavata</i>
Source	native, <i>P. amyloclavata</i>
pH Optimum	3-4
pH Stability	2-7.5
Temp. Optimum	30-40°C

### Function

This enzyme belongs to the family of carbohydrases acting specifically on  $\alpha$ -1,6-glucosidic branch linkages in carbohydrates like amylopectin or glycogen, but rarely hydrolyzes such bonds in pullulan which distinguishes it from pullulanases (E.C. 3.2.1.41).

The hydrolysis of glycogen 1,6-branches by isoamylase, however, is complete in contrast to limited action of pullulanase.

### Usage

Eucodis Isoamylase is ready to use without any further modification.

The enzyme is supplied as suspension in 3.2 M ammonium sulfate.

**Specific Activity:**  $\geq 5$  MU/mg protein

**Protein concentration:**  $\geq 1$  mg/mL (Bradford assay with BSA standard)

**Unit Definition:** One unit causes an increase in absorbance of 0.1 at a wavelength of 610 nm ( $A_{610nm}$ ) in one hour using rice starch as substrate at pH 3.5 and 40°C.