Creative Enzymes®

Native Sweet potato β-Amylase

Cat. No. NATE-0762

Lot. No. (See product label)

Introduction

Description	β-Amylase hydrolyzes the α-(1,4) glucan linkages in polysaccharides of three or more α-(1,4) linked D-glucose units. Natural substrates such as starch and glycogen are broken down into glucose and maltose. Pure, crystalline β-amylase preparation consists of four isoenzymes with different isoelectric points. The enzyme polymerizes very rapidly through the sulfhydryl groups in the absence of reducing agents. p-Chloromercuribenzoate inhibits the polymerization and the enzymatic activity. The reducing agents mercaptoethanol or dithiothreitol can completely restore the activity.
Applications	β-Amylase is used to hydrolyze α bonds of α-linked polysaccharides, such as starch and glycogen. β-Amylase, from Creative Enzymes, has been used in various plant studies, such as carbon starvation studies in Populus tremuloides. β-amylase from sweet potato has been used to examine the utility of the enzyme in inhibiting and removing Staphylococcus aureus biofilms. The enzyme has also been used to prepare β-limit dextrin from waxy maize starch.
Synonyms	saccharogen amylase; glycogenase; β amylase, β-amylase; 1,4-α-D-glucan maltohydrolase; EC 3.2.1.2; 9000-91-3

Product Information

Source	Sweet potato
Form	ammonium sulfate suspension. Crystalline suspension in 2.3 M (NH4)2SO4
EC Number	EC 3.2.1.2
CAS No.	9000-91-3
Molecular Weight	127.5
Activity	> 750 units/mg protein (E1%/280)
Unit Definition	One unit will liberate 1.0 mg of maltose from starch in 3 min at pH 4.8 at 20°C.

Storage and Shipping Information

Storage	2-8°C