Creative Enzymes®

Native Barley β-Amylase

Cat. No. NATE-0761

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, has been used in various plant studies, such as carbon starvation studies in Populus tremuloides. β-Amylase, from barley, has been used to study how pressure and temperature affect catalytic activity.

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 Barley

EC Number EC 3.2.1.2

CAS No. 9000-91-3

Activity 20-80 units/mg protein (biuret)

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