

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