Creative Enzymes®

Native Aspergillus niger Cellulase

Cat. No. NATE-0118

Lot. No. (See product label)

Introduction

Description Cellulase is any of several enzymes produced chiefly by fungi, bacteria, and protozoans that catalyze cellulolysis, the decomposition of cellulose and of some related polysaccharides; specifically, the hydrolysis of the 1,4-beta-D-glycosidic linkages in cellulose, hemicellulose, lichenin, and cereal beta-D-glucans. Cellulases break down the cellulose molecule into monosaccharides ("simple sugars") such as beta-glucose, or shorter polysaccharides and oligosaccharides. The name is also used for any naturally occurring mixture or complex of various such enzymes, that act serially or synergistically to decompose cellulosic material.

Applications Cellulase has been used to study the ability of several of its possible substrates, cellulose, Avicel PH-101, and filter paper, to protect enzyme activity during monogastric diegstion in animal and avian digestive tracts. The enzyme has also been approved as a secondary direct food additive as an aid in clam and shrimp processing.

Synonyms endo-1,4-β-D-glucanase; β-1,4-glucanase; β-1,4-endoglucan hydrolase; celluase A; cellulosin AP; endoglucanase D; alkali cellulase; cellulase A 3; celludextrinase; 9.5 cellulase; avicelase; pancellase SS; 1,4-(1,3; 1,4)-β-D-glucan 4-glucanohydrolase; EC 3.2.1.4

Product Information

Source Aspergillus niger

Form powder

EC Number EC 3.2.1.4

CAS No. 9012-54-8

Activity > 0.3 units/mg solid

Unit Definition One unit will liberate 1.0 μmole of glucose from cellulose in one hr at pH 5.0 at 37°C (2 hr incubation time).

Storage and Shipping Information

Storage 2-8°C