

Native Phaseolus vulgaris Alpha-Amylase Inhibitor

Cat. No. NATE-0893

Lot. No. (See product label)

Introduction

Description

A proteinaceous inhibitor of the digestive enzyme alpha-amylase (1,4-a-D-Glucan glucanohydrolase; EC 3.2.1.1) has been isolated and purified from kidney beans Phaseolus vulgaris. It is a glycoprotein and it specifically inhibits corresponding plant, bacterial and fungal enzymes. Maximum inhibitory activity, against alpha-amylase, occurs at 37° C and pH 5.5. The inhibitor has a molecular weight of 45,000-50,000. Similar alpha-amylase inhibitors also occur in wheat, rye and some other beans.

Synonyms

α-Amylase Inhibitor

Product Information

Species

Phaseolus vulgaris

Source

Phaseolus vulgaris

Molecular Weight

45-50 kDa

Unit Definition

One unit amount of inhibitor which, after preincubation for 20 minutes at 25° C, pH 6.9 will reduce the activity of two units of human salivary alpha-amylase by 50% (one unit of alpha-amylase will liberate, from soluble starch, one micromole of maltose per minute at 25° C, pH 6.9).