

β -GLUCANASE from *TRICHODERMA HARZIANUM*

Prepared at the 55th JECFA (2000) and published in FNP 52 Add 8 (2000), superseding specifications prepared at the 39th JECFA (1992) and published in FNP 52 Add 1 (1992). An ADI "Not specified" was established at the 39th JECFA (1992).

SOURCES

Produced by the controlled fermentation of non-pathogenic and non-toxicogenic strains of *Trichoderma harzianum* (classification by Rifai M.A., Mycological Papers, No. 116, pages 1-56, 1969) and isolated from the growth medium.

Active principles

Endo-1,3-beta-glucanase (synonym: laminarinase)
Exo-1,3-beta-glucanase

Systematic names and numbers

1,3-(1,3; 1,4)-beta-D-glucan 3(4) glucanohydrolase (EC 3.2.1.6; C.A.S. No. 62213-14-3)
Glucan 1,3-beta-glucosidase (EC 3.2.1.58; C.A.S. No. 9073-49-8)

Reactions catalyzed

Hydrolyzes beta-1,3 or beta-1,4 linkages in 1,3 (1,4)-beta-D-glucans yielding glucose.

Secondary enzyme activities

Hemicellulase
Cellulase (1,4-[1,3;1,4]-beta-D-Glucan 4-glucano-hydrolase); (EC 3.2.1.4; C.A.S. No. 9012-54-8)
Pectinase (Poly (1,4-alpha-D-galacturonide) glycanohydrolase); (EC 3.2.1.15; C.A.S. No. 9032-75-1)

DESCRIPTION

Typically off-white to tan amorphous powders or tan to dark-brown liquids. These products are concentrated and standardised with food-grade diluents or carriers such as maltodextrin, starch or glucose to obtain commercial preparations. Soluble in water and practically insoluble in ethanol and ether.

FUNCTIONAL USES

Enzyme preparation
Used in the preparation of fruit juices, wine, beer and vegetable oils

GENERAL SPECIFICATIONS

Must conform to the General Specifications for Enzyme Preparations Used in Food Processing (see Volume Introduction)

CHARACTERISTICS

IDENTIFICATION

β -Glucanase activity (Vol. 4)

The sample shows β -glucanase activity