Creative Enzymes®

Native environmental DNA α-Fucosidase

Cat. No. NATE-0749

Lot. No. (See product label)

Introduction

Description In enzymology, an alpha-L-fucosidase (EC 3.2.1.51) is an enzyme that catalyzes the chemical reaction:an alpha-L-fucoside + H2O↔ L-fucose + an alcohol. Thus, the two substRates of this enzyme are alpha-L-fucoside and H2O, whereas its two products are L-fucose and alcohol. This enzyme belongs to the family of hydrolases, specifically those glycosidases that hydrolyse O-and S-glycosyl compounds. This enzyme participates in n-glycan degradation and glycan structures-degradation.

Synonyms alpha-L-fucoside fucohydrolase; alpha-fucosidase; EC 3.2.1.51; alpha-L-fucosidase

Product Information

Species environmental DNA

Source Proprietary environmental DNA

EC Number EC 3.2.1.51

CAS No. 9037-65-4

Optimum pH suitable pH range is about 6-7 with optimum around 6.5

Optimum temperature The enzyme in relatively active in a temperature range (60-70°C)with optimum around 65°C

Specificity Fucoidan is a group of sulfated polysaccharides containing fucose and includes molecules with a backbone built of (1→3)-linked alpha-L-fucopyranosyl or alternating (1→3)-and (1→4)-linked alpha-L-fucopyranosyl residues, but also includes sulfated galactofucans with backbones built of (1→6)-beta-D-galacto-and/or (1→2)-beta-D-mannopyranosyl units and may include branching and various substitutions of sugar residues. Fucoidan from seaweed has found use as dietary supplement and has been implicated as having potential bioactive functions in humans (Ale et al 2011).

Unit Definition One unit of activity is defined as the amount of enzyme, which liberates 1 µmol of p-nitrophenol per minute under the given assay conditions.