Active Native Xanthamonas manihotis α-(1-3,4) fucosidase

Cat. No. α-(1-3,4) fucosidase-005X **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Isolated from Xanthamonas manihotis
Species	Xanthamonas manihotis
Description	α(1-3,4) Fucosidase cleaves branched non-reducing terminal fucose, linked α(1-3) or α(1-4) to the N-acetylglucosamine of terminal Gal-GlcNAc disaccharide structures. The presence of sialic acid (but not fucose) linked to the galactose will block cleavage.
Form	Sterile-filtered solution
EC	3.2.1.51
Specificity	Non-reducing terminal branched fucose when linked α(1-3) or α(1-4) to GlcNAc of a Gal-GlcNAc disaccharide structure. The presence of sialic acid (but not fucose) linked to the galactose will block cleavage.
Contents	α(1-3,4)-Fucosidase in 20 mM Tris-HCl, 25 mM NaCl,(pH 7.5). 5× Reaction Buffer 5.0 (250 mM sodium phosphate, pH 5.0)
Bio-activity	Activity: 0.5 U/mL Specific Activity: > 2 U/mg
Molecular Mass	40 kDa
Suggested usage	1. Add up to 1 nmole of oligosaccharide to a tube. 2. Add de-ionized water to a total

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	of 15 µL. 3. Add 4 µL of 5× Reaction Buffer 5.0. 4. Add 1 µL of α(1-3,4)-Fucosidase. 5. Incubate for 1 hour at 37 centigrade.
Unit Definition	One unit of Fucosidase activity is defined as the amount of enzyme required to cleave 1 µmole of fucose from Lewis X trisaccharide, 4-methylumbelliferyl glycoside in 1 minute at 37 centigrade and pH 5.0. Lewis X trisaccharide is Gal β-(1-4)[Fuc α-(1-3)]GlcNAc.
Purity	Each lot of α(1-3,4) Fucosidase is tested for contaminating activities by incubating the enzyme for 24 hours at 37 centigrade with the appropriate substrates; the detection limit of this assay is 5 µU/mL (IUB). A passing lot will have no detectable activity. For the protease assay, 10 µg of denatured BSA is incubated for 24 hours with 2 µL of enzyme. Analysis of the BSA band after SDS-PAGE should show no evidence of degradation.
Applications	α(1-3, 4) Fucosidase is useful for: - Fucose linkage determination - Deglycosylating glycoproteins with Lewis structures
Stability	Stable at least 12 months when stored properly. Several days exposure to ambient temperatures will not reduce activity.
Storage	Store enzyme at 4 centigrade. Do not freeze.
Storage Buffer	The enzyme is provided as a sterile-filtered solution in 20 mM Tris-HCl, 25 mM NaCl pH 7.5.

GENE INFORMATION

Synonyms	α-L-fucoside fucohydrolase; α-L-fucosidase; α-(1-3,4) fucosidase

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