



CERTIFICATE OF ANALYSIS

Version 3.7

revised on May 28, 2018

Alpha-(1-3,4) Fucosidase

PRODUCT NAME: Alpha-(1-3,4) Fucosidase
PRODUCT NUMBERS: E-F134, E-F134-200, E-F134-20

LOT NUMBER: 706.1A
EXPIRATION DATE: March 03, 2020
ASSAY DATE: April 20, 2018

SOURCE: *Xanthamonas manihotis*
FORMULATION: 20 mM Tris-HCl, 25 mM NaCl pH 7.5, filter sterilized
STORAGE: 4°C (Do not freeze)

ACTIVITY: Activity¹ 0.5 U/ml (Specification: ≥ 0.5 U/ml)
Specific Activity² 2.1 U/mg (Specification: ≥ 2 U/mg)

CONTAMINATING ACTIVITY ASSAYS:

Protease Assay ³	Passed	(Specification "Passed")
Glycosidase activity ⁴		
Beta-Galactosidase	Passed	(Specification "Passed")
N-acetylglucosaminidase	Passed	(Specification "Passed")
Alpha-Galactosidase	Passed	(Specification "Passed")

Contaminant tested for:
Protease
Beta-Galactosidase
N-acetylglucosaminidase
Alpha-Galactosidase

Substrate:
Denatured BSA
p-nitrophenyl-beta-D-galactopyranoside
p-nitrophenyl-beta-D-N-acetylglucosaminide
p-nitrophenyl-alpha-D-galactopyranoside

1. Defined as the amount of enzyme required to cleave 1 μ mole of fucose from Lewis X trisaccharide, 4-methylumbelliferyl glycoside in 1 minute at 37°C and pH 5.0. Lewis X trisaccharide is Gal Beta-(1-4)[Fuc alpha-(1-3)]GlcNAc.
2. Protein concentration determined by Bradford method, using BSA as a standard.
3. For the protease assay, 10 μ g of denatured BSA is incubated at 37°C for 24 hr with 2 ul of enzyme. SDS-PAGE analysis of the treated BSA shows no evidence of degradation.
4. Unexpected glycosidic activity is tested by incubating the enzyme for 24 hours at 37°C with the appropriate substrates; the detection limit of this assay is 5 μ U/ml (IUB). A passing lot will have no detectable activity.

President - QA-Bio Inc
Authorized by Mike Gibson
May 28, 2018