NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
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New England Biolabs
Certificate of Analysis

Product Name:	*α1-2, 3, 4, 6 Fucosidase*
Catalog Number:	*P0748S*
Concentration:	*8,000 U/ml*
Unit Definition:	*One unit is defined as the amount of enzyme required to cleave > 95% of the α-L-fucose from 1 nmol of Fuc α1-2Galα1-4Glc-7-amino-4-methyl-coumarin (AMC), in 1 hour at 37°C in a total reaction volume of 10 µl.*
Packaging Lot Number:	*10065556*
Expiration Date:	*03/2021*
Storage Temperature:	*4°C*
Storage Conditions:	*50 mM NaCl, 20 mM Tris-HCl, 1 mM EDTA, (pH 7.5 @ 25°C)*
Specification Version:	*PS-P0748S/L v2.0*

α1-2, 3, 4, 6 Fucosidase Component List

NEB Part Number	Component Description	Lot Number	Individual QC Result
P0748SVIAL	α1-2, 3, 4, 6 Fucosidase	10065554	**Pass**
B9001SVIAL	Purified BSA	10059427	**Pass**
B1727SVIAL	10X GlycoBuffer 1	10066905	**Pass**

Assay Name/Specification	Lot # 10065556
Protein Purity Assay (SDS-PAGE) α1-2, 3, 4, 6 Fucosidase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**
Protease Activity (SDS-PAGE) A 20 µl reaction in 1X Glyco Buffer 1 containing 24 µg of a standard mixture of proteins and a minimum of 40 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37°C, results in no detectable degradation of the protein mixture as determined by SDS-PAGE with Coomassie Blue detection.	**Pass**
Glycosidase Activity (β1-4 Galactosidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled β-Galactosidase substrate (Galβ1-4GlcNAcβ1-3Galβ1-4Glc -AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (β1-3 Galactosidase)	**Pass**

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Assay Name/Specification	Lot # 10065556
A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled β-Galactosidase substrate (Galβ1-3GlcNAcβ1-4Galβ1-4Glc-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	
Glycosidase Activity (β-Xylosidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled β-Xylosidase substrate (Xylβ1-4Xylβ1-4Xylβ1-4Xyl-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (β-N-Acetylglucosaminidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled β-N-Acetylglucosaminidase substrate (GlcNAcβ1-4GlcNAcβ1-4GlcNAc-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α1-3 Galactosidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α-Galactosidase substrate (Galα1-3Galβ1-4GlcNAc-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α-Neuraminidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α-Neuraminidase substrate (Neu5Acα2-3Galβ1-3GlcNAcβ1-3Galβ1-4Glc-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α-N-Acetylgalactosaminidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α-N-Acetylgalactosaminidase substrate (GalNAcα1-3(Fucα1-2)Galβ1-4Glc-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α-Glucosidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α-Glucosidase substrate (Glcα1-6Glcα1-4Glc-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (β-N-Acetylgalactosaminidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled	**Pass**

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β-N-Acetylgalactosaminidase substrate (GalNAcβ1-4Galβ1-4Glc-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	
Glycosidase Activity (β-Mannosidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled β-Mannosidase substrate (Manβ1-4Manβ1-4Man-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α1-6 Mannosidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α-Mannosidase substrate (Manα1-6Manα1-6(Manα1-3)Man-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α1-6 Galactosidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α-Galactosidase substrate (Galα1-6Galα1-6Glcα1-2Fru-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α1-3 Mannosidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α-Mannosidase substrate (Manα1-3Manβ1-4GlcNAc-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (PNGase F) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled PNGase F substrate (Fluoresceinated fetuin triantennary) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (Endo F2, F3) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled Endo F2, F3 substrate (Dansylated fibrinogen biantennary) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (Endo F1, F2, H) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled Endo F1, F2, H substrate (Dansylated invertase high mannose) and 16 units of α1-2, 3, 4, 6	**Pass**

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Fucosidase incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	

This product has been tested and shown to be in compliance with all specifications.

Alicia Bielik
Production Scientist
21 Apr 2020

Jay Minichiello
Packaging Quality Control Inspector
21 Apr 2020