

New England Biolabs Certificate of Analysis

Product Name: α 1-2, 3, 4, 6 Fucosidase
Catalog Number: P0748L
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 α 1-2Gal α 1-4Glc-7-amino-4-methyl-coumarin (AMC), in 1 hour at 37°C in a total reaction volume of 10 μ l.
Lot Number: 10014926
Expiration Date: 07/2019
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
P0748LVIAL	α 1-2, 3, 4, 6 Fucosidase	10014083	Pass
B9001SVIAL	Purified BSA	0071705	Pass
B1727SVIAL	10X GlycoBuffer 1	10011906	Pass

Assay Name/Specification	Lot # 10014926
<p>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 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>Glycosidase Activity (β-N-Acetylgalactosaminidase) A 10 μl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled β-N-Acetylgalactosaminidase substrate (GalNAcβ1-4Galβ1-4Glc-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>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 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass

Assay Name/Specification	Lot # 10014926
<p>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 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>Glycosidase Activity (β1-3 Galactosidase) 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 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>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 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>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.</p>	Pass
<p>Protein Purity Assay (SDS-PAGE) α1-2, 3, 4, 6 Fucosidase is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass
<p>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 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>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 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>Glycosidase Activity (α1-3 Mannosidase)</p>	Pass

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<p>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 37°C results in no detectable activity as determined by thin layer chromatography.</p>	
<p>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 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>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 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>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(Fuca1-2)Galβ1-4Glc-AMC) and 16 units of α1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>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 Fucosidase incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>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 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>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 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p>Glycosidase Activity (α-Glucosidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled</p>	Pass

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α -Glucosidase substrate (Glc α 1-6Glc α 1-4Glc-AMC) and 16 units of α 1-2, 3, 4, 6 Fucosidase incubated for 20 hours at 37°C 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
22 Jun 2018



Michael Tonello
Packaging Quality Control Inspector
11 Sep 2018