

New England Biolabs Certificate of Analysis

Product Name: α 1-3,4 Fucosidase
Catalog Number: P0769L
Concentration: 4,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to cleave > 95% of the α -fucose from 1 nmol of Gal β 1-4GlcNAc β 1-3(Fu α 1-3)Gal β 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: 10021898
Expiration Date: 08/2019
Storage Temperature: 4°C
Storage Conditions: 50 mM NaCl , 20 mM Tris-HCl , 1 mM EDTA, (pH 7.5 @ 25°C)
Specification Version: PS-P0769S/L v1.0

| α1-3,4 Fucosidase Component List | | | |
|---|------------------------------|-------------------|-----------------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| P0769LVIAL | α 1-3,4 Fucosidase | 10018014 | Pass |
| B9001SVIAL | Purified BSA | 0071705 | Pass |
| B1727SVIAL | 10X GlycoBuffer 1 | 10011906 | Pass |

| Assay Name/Specification | Lot # 10021898 |
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| <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 α1-3,4 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 α1-3,4 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 α1-3,4 Fucosidase incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p> | Pass |

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| <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 α1-3,4 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) α1-3,4 Fucosidase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</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 α1-3,4 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) 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 α1-3,4 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 α1-3,4 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 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 α1-3,4 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-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 α1-3,4 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)</p> | Pass |

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| <p>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 α1-3,4 Fucosidase incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p> | |
| <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 α1-3,4 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 α1-3,4 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 α1-3,4 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 α-Glucosidase substrate (Glcα1-6Glcα1-4Glc-AMC) and 16 units of α1-3,4 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 α1-3,4 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 α1-3,4 Fucosidase incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p> | Pass |
| <p>Glycosidase Activity (α1-2 Fucosidase) A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled</p> | Pass |

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| <p>α-Fucosidase substrate (Fucα1-2Galβ1-4Glc-AMC) and 16 units of α1-3,4 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 α1-3,4 Fucosidase incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p> | <p>Pass</p> |

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
20 Sep 2018