

New England Biolabs Certificate of Analysis

Product Name: α 2-3 Neuraminidase S
Catalog Number: P0743L
Concentration: 8,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to cleave > 95% of the terminal α -Neu5Ac from 1 nmol Neu5Ac α 2-3Gal β 1-3GlcNAc β 1-3Gal β 1-4Glc-AMC, in 1 hour at 37°C in a total reaction volume of 10 μ l.
Packaging Lot Number: 10239968
Expiration Date: 03/2026
Storage Temperature: -20°C
Storage Conditions: 50 mM NaCl, 20 mM Tris-HCl, 1 mM EDTA, (pH 7.5 @ 25°C)
Specification Version: PS-P0743S/L v1.0

| α2-3 Neuraminidase S Component List | | | |
|--|------------------------------|-------------------|-----------------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| P0743LVIAL | α 2-3 Neuraminidase S | 10235982 | Pass |
| B1727SVIAL | 10X GlycoBuffer 1 | 10229621 | Pass |

| Assay Name/Specification | Lot # 10239968 |
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| <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 80 units of α2-3 Neuraminidase S 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 80 units of α2-3 Neuraminidase S 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 80 units of α2-3 Neuraminidase S incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p> | Pass |

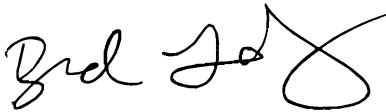
| Assay Name/Specification | Lot # 10239968 |
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| <p>Glycosidase Activity (α-Glucosidase) A 10 μl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α-Glucosidase substrate (Glcα1-6Glcα1-4Glc-AMC) and 80 units of α2-3 Neuraminidase S 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 80 units of α2-3 Neuraminidase S 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 α-Fucosidase substrate (Fuca1-2Galβ1-4Glc-AMC) and 80 units of α2-3 Neuraminidase S 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 Fucosidase) A 10 μl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α-Fucosidase substrate (Fuca1-3Galβ1-4GlcNAcβ1-3Galβ1-4Glc-AMC) and 80 units of α2-3 Neuraminidase S 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 Galactosidase) A 10 μl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α-Galactosidase substrate (Galα1-3Galβ1-4GlcNAc-AMC) and 80 units of α2-3 Neuraminidase S 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 80 units of α2-3 Neuraminidase S 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 80 units of α2-3 Neuraminidase S 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)</p> | Pass |

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| <p>A 10 µl reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α-Mannosidase substrate (Manα1-6Manα1-6(Manα1-3)Man-AMC) and 80 units of α2-3 Neuraminidase S incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p> | |
| <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 80 units of α2-3 Neuraminidase S 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 80 units of α2-3 Neuraminidase S 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 80 units of α2-3 Neuraminidase S incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p> | Pass |
| <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 80 units of α2-3 Neuraminidase S 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 80 units of α2-3 Neuraminidase S 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 80 units of α2-3 Neuraminidase S 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</p> | Pass |

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| <p>proteins and a minimum of 80 units of α2-3 Neuraminidase S 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> <p>Protein Purity Assay (SDS-PAGE) α2-3 Neuraminidase S is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p> | <p>Pass</p> |

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

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Brad Landgraf
Production Scientist
26 Mar 2024



Michael Tonello
Packaging Quality Control Inspector
03 May 2024