

New England Biolabs Product Specification

<i>Product Name:</i>	<i>Boletopsis grisea Lectin (BGL)</i>
<i>Catalog #:</i>	<i>P0867S</i>
<i>Concentration:</i>	<i>1 mg/ml</i>
<i>Shelf Life:</i>	<i>24 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>50mM Tris-HCl, 200mM NaCl (pH 7.5 @ 25°C)</i>
<i>Specification Version:</i>	<i>PS-P0867S v2.0</i>
<i>Effective Date:</i>	<i>01 Nov 2021</i>

Assay Name/Specification (minimum release criteria)

Functional Testing (Epitope Directed Glycan Enrichment) - A 120 µl reaction in 20 mM Tris-HCl pH 7.5 containing 100 ng of fluorescently labeled with procainamide G0/A2 N-glycan (asialo-, agalacto-, biantennary complex N-glycan) and 100 µg BGL lectin incubated for 1.5 hours at 25°C results in ≥85% enrichment as determined by UPLC-HILIC-FLR.

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 1 µl of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

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 1 µl of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

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 1 µl of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

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 1 µl of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

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 1 µl of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.



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Glycosidase Activity (α 1-2 Fucosidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α -Fucosidase substrate (Fuca1-2Gal β 1-4Glc-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

Glycosidase Activity (α 1-3 Fucosidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α -Fucosidase substrate (Fuca1-3Gal β 1-4GlcNAc β 1-3Gal β 1-4Glc-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

Glycosidase Activity (α 1-3 Galactosidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α -Galactosidase substrate (Gal α 1-3Gal β 1-4GlcNAc-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

Glycosidase Activity (α 1-3 Mannosidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α -Mannosidase substrate (Man α 1-3Man β 1-4GlcNAc-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

Glycosidase Activity (α 1-6 Galactosidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α -Galactosidase substrate (Gal α 1-6Gal α 1-6Glc α 1-2Fru-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

Glycosidase Activity (α 1-6 Mannosidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α -Mannosidase substrate (Man α 1-6Man α 1-6(Man α 1-3)Man-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

Glycosidase Activity (α -N-Acetylgalactosaminidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled α -N-Acetylgalactosaminidase substrate (GalNAc α 1-3(Fuca1-2)Gal β 1-4Glc-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

Glycosidase Activity (β -Mannosidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled β -Mannosidase substrate (Man β 1-4Man β 1-4Man-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

Glycosidase Activity (β -Xylosidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled β -Xylosidase substrate (Xyl β 1-4Xyl β 1-4Xyl β 1-4Xyl-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

Glycosidase Activity (β 1-3 Galactosidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled β -Galactosidase substrate (Gal β 1-3GlcNAc β 1-4Gal β 1-4Glc-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.



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Glycosidase Activity (β 1-4 Galactosidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled β -Galactosidase substrate (Gal β 1-4GlcNAc β 1-3Gal β 1-4Glc-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

Glycosidase Activity (β -N-Acetylgalactosaminidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled β -N-Acetylgalactosaminidase substrate (GalNAc β 1-4Gal β 1-4Glc-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

Glycosidase Activity (β -N-Acetylglucosaminidase) - A 10 μ l reaction in Glyco Buffer 1 containing 1 nM of fluorescently-labeled β -N-Acetylglucosaminidase substrate (GlcNAc β 1-4GlcNAc β 1-4GlcNAc-AMC) and 1 μ l of Boletopsis grisea Lectin (BGL) incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.

Protease Activity (Non-Specific, SDS-PAGE) - A 20 μ l reaction in 1X Glyco Buffer 2 containing 24 μ g of a standard mixture of proteins and a minimum of 7 μ l of Boletopsis grisea Lectin (BGL) was incubated for 20 hours at 37°C. After incubation, no detectable degradation of the protein mixture was determined by SDS-PAGE with Coomassie Blue detection.

Protein Purity Assay (SDS-PAGE) - Boletopsis grisea Lectin (BGL) is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.

RNase Activity (Extended Digestion) - A 10 μ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 μ l of Boletopsis grisea Lectin (BGL) is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.

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