

## New England Biolabs Certificate of Analysis

**Product Name:** *Endoglycoceramidase I (EGCase I)*  
**Catalog Number:** *P0773S*  
**Concentration:** *6 U/ml*  
**Unit Definition:** *One unit of R. triatomea EGCase I is defined as the amount of enzyme required to hydrolyze 1 μmol of ganglioside GM1a per minute at 37°C.*  
**Packaging Lot Number:** *10221411*  
**Expiration Date:** *12/2025*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *50 mM NaCl, 20 mM Tris-HCl, 1 mM EDTA, (pH 7.5 @ 25°C)*  
**Specification Version:** *PS-P0773S v1.0*

Endoglycoceramidase I (EGCase I) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
P0773SVIAL	Endoglycoceramidase I (EGCase I)	10208894	Pass
B0773SVIAL	EGCase I Buffer	10178089	Pass

Assay Name/Specification	Lot # 10221411
<p><b>Glycosidase Activity (Endo F1, F2, H)</b>            A 10 μl reaction in EGCase I Buffer containing 1 nM of fluorescently-labeled Endo F1, F2, H substrate (Dansylated invertase high mannose) and 6 mU of EGCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p><b>Glycosidase Activity (Endo F2, F3)</b>            A 10 μl reaction in EGCase I Buffer containing 1 nM of fluorescently-labeled Endo F2, F3 substrate (Dansylated fibrinogen biantennary) and 6 mU of EGCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p><b>Glycosidase Activity (PNGase F)</b>            A 10 μl reaction in EGCase I Buffer containing 1 nM of fluorescently-labeled PNGase F substrate (Fluoresceinated fetuin triantennary) and 6 mU of EGCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	Pass
<p><b>Glycosidase Activity (α-Glucosidase)</b>            A 10 μl reaction in EGCase I Buffer containing 1 nM of fluorescently-labeled</p>	Pass

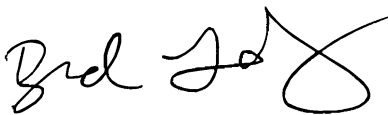
Assay Name/Specification	Lot # 10221411
<p><math>\alpha</math>-Glucosidase substrate (Glc<math>\alpha</math>1-6Glc<math>\alpha</math>1-4Glc-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	
<p><b>Glycosidase Activity (<math>\alpha</math>-N-Acetylgalactosaminidase)</b> A 10 <math>\mu</math>l reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled <math>\alpha</math>-N-Acetylgalactosaminidase substrate (GalNAc<math>\alpha</math>1-3(Fuca<math>\alpha</math>1-2)Gal<math>\beta</math>1-4Glc-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	<b>Pass</b>
<p><b>Glycosidase Activity (<math>\alpha</math>-Neuraminidase)</b> A 10 <math>\mu</math>l reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled <math>\alpha</math>-Neuraminidase substrate (Neu5Ac<math>\alpha</math>2-3Gal<math>\beta</math>1-3GlcNAc<math>\beta</math>1-3Gal<math>\beta</math>1-4Glc-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	<b>Pass</b>
<p><b>Glycosidase Activity (<math>\alpha</math>1-2 Fucosidase)</b> A 10 <math>\mu</math>l reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled <math>\alpha</math>-Fucosidase substrate (Fuca<math>\alpha</math>1-2Gal<math>\beta</math>1-4Glc-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	<b>Pass</b>
<p><b>Glycosidase Activity (<math>\alpha</math>1-3 Fucosidase)</b> A 10 <math>\mu</math>l reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled <math>\alpha</math>-Fucosidase substrate (Fuca<math>\alpha</math>1-3Gal<math>\beta</math>1-4GlcNAc<math>\beta</math>1-3Gal<math>\beta</math>1-4Glc-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	<b>Pass</b>
<p><b>Glycosidase Activity (<math>\alpha</math>1-3 Galactosidase)</b> A 10 <math>\mu</math>l reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled <math>\alpha</math>-Galactosidase substrate (Gal<math>\alpha</math>1-3Gal<math>\beta</math>1-4GlcNAc-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	<b>Pass</b>
<p><b>Glycosidase Activity (<math>\alpha</math>1-3 Mannosidase)</b> A 10 <math>\mu</math>l reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled <math>\alpha</math>-Mannosidase substrate (Man<math>\alpha</math>1-3Man<math>\beta</math>1-4GlcNAc-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	<b>Pass</b>
<p><b>Glycosidase Activity (<math>\alpha</math>1-6 Galactosidase)</b> A 10 <math>\mu</math>l reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled <math>\alpha</math>-Galactosidase substrate (Gal<math>\alpha</math>1-6Gal<math>\alpha</math>1-6Glc<math>\alpha</math>1-2Fru-AMC) and 6 mU of EGCCase I</p>	<b>Pass</b>

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<p>incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	
<p><b>Glycosidase Activity (α-1-6 Mannosidase)</b> A 10 µl reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled α-Mannosidase substrate (Manα1-6Manα1-6(Manα1-3)Man-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	<b>Pass</b>
<p><b>Glycosidase Activity (β-Mannosidase)</b> A 10 µl reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled β-Mannosidase substrate (Manβ1-4Manβ1-4Man-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	<b>Pass</b>
<p><b>Glycosidase Activity (β-N-Acetylgalactosaminidase)</b> A 10 µl reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled β-N-Acetylgalactosaminidase substrate (GalNAcβ1-4Galβ1-4Glc-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	<b>Pass</b>
<p><b>Glycosidase Activity (β-N-Acetylglucosaminidase)</b> A 10 µl reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled β-N-Acetylglucosaminidase substrate (GlcNAcβ1-4GlcNAcβ1-4GlcNAc-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	<b>Pass</b>
<p><b>Glycosidase Activity (β-Xylosidase)</b> A 10 µl reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled β-Xylosidase substrate (Xylβ1-4Xylβ1-4Xylβ1-4Xyl-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	<b>Pass</b>
<p><b>Glycosidase Activity (β1-3 Galactosidase)</b> A 10 µl reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled β-Galactosidase substrate (Galβ1-3GlcNAcβ1-4Galβ1-4Glc-AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by thin layer chromatography.</p>	<b>Pass</b>
<p><b>Glycosidase Activity (β1-4 Galactosidase)</b> A 10 µl reaction in EGCCase I Buffer containing 1 nM of fluorescently-labeled β-Galactosidase substrate (Galβ1-4GlcNAcβ1-3Galβ1-4Glc -AMC) and 6 mU of EGCCase I incubated for 20 hours at 37°C results in no detectable activity as determined by</p>	<b>Pass</b>

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<p>thin layer chromatography.</p> <p><b>Protease Activity (SDS-PAGE)</b> A 20 µl reaction in 1X EGCCase I Buffer containing 24 µg of a standard mixture of proteins and a minimum of 30 mU of EGCCase I 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><b>Protein Purity Assay (SDS-PAGE)</b> EGCase I is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	<p style="text-align: center;"><b>Pass</b></p> <p style="text-align: center;"><b>Pass</b></p>

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

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Brad Landgraf  
Production Scientist  
01 Dec 2023



Josh Hersey  
Packaging Quality Control Inspector  
05 Dec 2023