NEW ENGLAND BioLabs Inc.
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New England Biolabs
Certificate of Analysis

Product Name:	*Rapid™ PNGase F*
Catalog Number:	*P0710S*
Unit Definition:	*N/A*
Lot Number:	*10053297*
Expiration Date:	*07/2020*
Storage Temperature:	*4°C*
Storage Conditions:	*50 mM NaCl , 20 mM Tris-HCl , 5 mM EDTA, (pH 7.5 @ 25°C)*
Specification Version:	*PS-P0710S v2.0*

Rapid™ PNGase F Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
P0710SVIAL	Rapid™ PNGase F	10049217	**Pass**
B0718SVIAL	5X Rapid PNGase F Buffer	10049652	**Pass**

Assay Name/Specification	**Lot # 10053297**
Glycosidase Activity (α-Glucosidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled α-Glucosidase substrate (Glcα1-6Glcα1-4Glc-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α-N-Acetylgalactosaminidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled α-N-Acetylgalactosaminidase substrate (GalNAcα1-3(Fucα1-2)Galβ1-4Glc-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α-Neuraminidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled α-Neuraminidase substrate (Neu5Acα2-3Galβ1-3GlcNAcβ1-3Galβ1-4Glc-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α1-2 Fucosidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled α-Fucosidase substrate (Fucα1-2Galβ1-4Glc-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer	**Pass**

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Assay Name/Specification	Lot # 10053297
chromatography.	
Glycosidase Activity (α1-3 Fucosidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled α-Fucosidase substrate (Fucα1-3Galβ1-4GlcNAcβ1-3Galβ1-4Glc-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α1-3 Galactosidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled α-Galactosidase substrate (Galα1-3Galβ1-4GlcNAc-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α1-3 Mannosidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled α-Mannosidase substrate (Manα1-3Manβ1-4GlcNAc-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α1-6 Galactosidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled α-Galactosidase substrate (Galα1-6Galα1-6Glcα1-2Fru-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α1-6 Mannosidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled α-Mannosidase substrate (Manα1-6Manα1-6(Manα1-3)Man-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (β-Mannosidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled β-Mannosidase substrate (Manβ1-4Manβ1-4Man-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (β-N-Acetylgalactosaminidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled β-N-Acetylgalactosaminidase substrate (GalNAcβ1-4Galβ1-4Glc-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**

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Assay Name/Specification	Lot # 10053297
Glycosidase Activity (β-N-Acetylglucosaminidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled β-N-Acetylglucosaminidase substrate (GlcNAcβ1-4GlcNAcβ1-4GlcNAc-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (β-Xylosidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled β-Xylosidase substrate (Xylβ1-4Xylβ1-4Xylβ1-4Xyl-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (β1-3 Galactosidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled β-Galactosidase substrate (Galβ1-3GlcNAcβ1-4Galβ1-4Glc-AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (β1-4 Galactosidase) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled β-Galactosidase substrate (Galβ1-4GlcNAcβ1-3Galβ1-4Glc -AMC) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Protease Activity (SDS-PAGE) A 20 µl reaction in 1X Rapid PNGase F Buffer containing 24 µg of a standard mixture of proteins and a minimum of 5 µl of Rapid PNGase F 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.	**Pass**
Protein Purity Assay (SDS-PAGE) Rapid PNGase F is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**
Glycosidase Activity (Endo F1, F2, H) A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled Endo F1, F2, H substrate (Dansylated invertase high mannose) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (Endo F2, F3)	**Pass**

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A 10 µl reaction in Rapid PNGase F Buffer containing 1 nM of fluorescently-labeled Endo F2, F3 substrate (Dansylated fibrinogen biantennary) and 1 µl of Rapid PNGase F incubated for 20 hours at 37ºC 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.

Brad Landgraf
Production Scientist
18 Jul 2019

Jay Minichiello
Packaging Quality Control Inspector
22 Aug 2019