NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

New England Biolabs
Certificate of Analysis

Product Name:	*Endo F2*
Catalog Number:	*P0772S*
Concentration:	*8,000 U/ml*
Unit Definition:	*One unit is defined as the amount of enzyme required to cleave >95% of the carbohydrate from 10 µg Porcine Fibrinogen in 1 hour at 37°C in a total reaction volume of 10 µl.*
Lot Number:	*10032721*
Expiration Date:	*04/2021*
Storage Temperature:	*-20°C*
Storage Conditions:	*50 mM NaCl, 20 mM Tris-HCl, 1 mM EDTA, (pH 7.5 @ 25°C)*
Specification Version:	*PS-P0772S v1.0*

Endo F2 Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
P0772SVIAL	Endo F2	10041530	**Pass**
B1703SVIAL	10X Glycobuffer 4	10043793	**Pass**

Assay Name/Specification	**Lot # 10032721**
Glycosidase Activity (α1-6 Galactosidase) A 10 µl reaction in Glyco Buffer 4 containing 1 nM of fluorescently-labeled α-Galactosidase substrate (Galα1-6Galα1-6Glcα1-2Fru-AMC) and 16 units of Endo F2 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 Glyco Buffer 4 containing 1 nM of fluorescently-labeled α-Mannosidase substrate (Manα1-6Manα1-6(Manα1-3)Man-AMC) and 16 units of Endo F2 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 Glyco Buffer 4 containing 1 nM of fluorescently-labeled α-N-Acetylgalactosaminidase substrate (GalNAcα1-3(Fucα1-2)Galβ1-4Glc-AMC) and 16 units of Endo F2 incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (β-Mannosidase)	**Pass**

NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

Assay Name/Specification	Lot # 10032721
A 10 µl reaction in Glyco Buffer 4 containing 1 nM of fluorescently-labeled β-Mannosidase substrate (Manβ1-4Manβ1-4Man-AMC) and 16 units of Endo F2 incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	
Glycosidase Activity (β-Xylosidase) A 10 µl reaction in Glyco Buffer 4 containing 1 nM of fluorescently-labeled β-Xylosidase substrate (Xylβ1-4Xylβ1-4Xylβ1-4Xyl-AMC) and 16 units of Endo F2 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 Glyco Buffer 4 containing 1 nM of fluorescently-labeled β-Galactosidase substrate (Galβ1-3GlcNAcβ1-4Galβ1-4Glc-AMC) and 16 units of Endo F2 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 Glyco Buffer 4 containing 1 nM of fluorescently-labeled β-Galactosidase substrate (Galβ1-4GlcNAcβ1-3Galβ1-4Glc -AMC) and 16 units of Endo F2 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 Glyco Buffer 4 containing 1 nM of fluorescently-labeled β-N-Acetylgalactosaminidase substrate (GalNAcβ1-4Galβ1-4Glc-AMC) and 16 units of Endo F2 incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (β-N-Acetylglucosaminidase) A 10 µl reaction in Glyco Buffer 4 containing 1 nM of fluorescently-labeled β-N-Acetylglucosaminidase substrate (GlcNAcβ1-4GlcNAcβ1-4GlcNAc-AMC) and 16 units of Endo F2 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 Glyco Buffer 4 containing 24 µg of a standard mixture of proteins and a minimum of 40 units of Endo F2 incubated for 20 hours at 37°C, results in no detectable degradation of the protein mixture as determined by SDS-PAGE with Coomassie Blue.	**Pass**
Protein Purity Assay (SDS-PAGE) Endo F2 is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue	**Pass**

240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

Assay Name/Specification	Lot # 10032721
detection.	
Glycosidase Activity (α-Glucosidase) A 10 µl reaction in Glyco Buffer 4 containing 1 nM of fluorescently-labeled α-Glucosidase substrate (Glcα1-6Glcα1-4Glc-AMC) and 16 units of Endo F2 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 Glyco Buffer 4 containing 1 nM of fluorescently-labeled α-Neuraminidase substrate (Neu5Acα2-3Galβ1-3GlcNAcβ1-3Galβ1-4Glc-AMC) and 16 units of Endo F2 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 Glyco Buffer 4 containing 1 nM of fluorescently-labeled α-Fucosidase substrate (Fucα1-2Galβ1-4Glc-AMC) and 16 units of Endo F2 incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**
Glycosidase Activity (α1-3 Fucosidase) A 10 µl reaction in Glyco Buffer 4 containing 1 nM of fluorescently-labeled α-Fucosidase substrate (Fucα1-3Galβ1-4GlcNAcβ1-3Galβ1-4Glc-AMC) and 16 units of Endo F2 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 Glyco Buffer 4 containing 1 nM of fluorescently-labeled α-Galactosidase substrate (Galα1-3Galβ1-4GlcNAc-AMC) and 16 units of Endo F2 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 Glyco Buffer 4 containing 1 nM of fluorescently-labeled α-Mannosidase substrate (Manα1-3Manβ1-4GlcNAc-AMC) and 16 units of Endo F2 incubated for 20 hours at 37ºC results in no detectable activity as determined by thin layer chromatography.	**Pass**

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

NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

Brad Landgraf
Production Scientist
19 Apr 2019

Michael Tonello
Packaging Quality Control Inspector
29 May 2019