NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
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New England Biolabs
Certificate of Analysis

Product Name:	*BlpI*
Catalog Number:	*R0585L*
Concentration:	*10,000 U/ml*
Unit Definition:	*One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.*
Packaging Lot Number:	*10172476*
Expiration Date:	*12/2024*
Storage Temperature:	*-20°C*
Storage Conditions:	*50 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA*
Specification Version:	*PS-R0585S/L v1.0*

BlpI Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
R0585LVIAL	BlpI	10172472	**Pass**
B6004SVIAL	rCutSmart™ Buffer	10173160	**Pass**

Assay Name/Specification	**Lot # 10172476**
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [^{3}H] E. coli DNA and a minimum of 100 units of BlpI incubated for 4 hours at 37ºC releases <0.1% of the total radioactivity.	**Pass**
Protein Purity Assay (SDS-PAGE) BlpI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	**Pass**
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 10 units of BlpI incubated for 16 hours at 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with BlpI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16ºC. Of these ligated fragments, ~75% can be recut with BlpI.	**Pass**
Endonuclease Activity (Nicking)	**Pass**

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Assay Name/Specification	Lot # 10172476
A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 30 units of BlpI incubated for 4 hours at 37ºC results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.	

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

YunJie Sun
Production Scientist
10 Jan 2023

Michael Tonello
Packaging Quality Control Inspector
11 Jan 2023