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

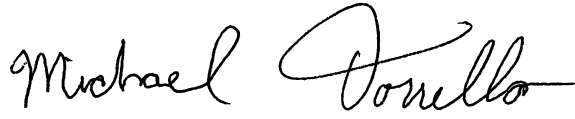|	
Product Name:	*HphI*
Catalog Number:	*R0158S*
Concentration:	*5,000 U/ml*
Unit Definition:	*One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.*
Packaging Lot Number:	*10076439*
Expiration Date:	*05/2022*
Storage Temperature:	*-20°C*
Storage Conditions:	*300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA*
Specification Version:	*PS-R0158S/L v2.0*

HphI Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
R0158SVIAL	HphI	10073968	**Pass**
B7204SVIAL	CutSmart® Buffer	10075570	**Pass**

Assay Name/Specification	Lot # 10076439
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 5 units of HphI incubated for 4 hours at 37ºC releases <0.2% of the total radioactivity.	**Pass**
Ligation and Recutting (Terminal Integrity) After a 5-fold over-digestion of Lambda DNA with HphI, ~50% 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 HphI.	**Pass**
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 25 Units of HphI incubated for 16 hours at 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**

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

nqa. ISO 9001 Registered Quality Management
nqa. ISO 13485 Registered Medical Devices
nqa. ISO 14001 Registered Environmental Management

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Penghua Zhang
Production Scientist
16 Jul 2020

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Michael Tonello
Packaging Quality Control Inspector
16 Jul 2020

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