NEW ENGLAND BioLabs Inc.
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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:	*10100720*
Expiration Date:	*03/2023*
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	10100718	**Pass**
B7204SVIAL	CutSmart® Buffer	10097266	**Pass**

Assay Name/Specification	**Lot # 10100720**
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**
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 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**

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

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16 Mar 2021

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