

## New England Biolabs Certificate of Analysis

**Product Name:** PstI-HF<sup>®</sup>  
**Catalog Number:** R3140L  
**Concentration:** 20,000 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.  
**Lot Number:** 10013767  
**Expiration Date:** 06/2020  
**Storage Temperature:** -20°C  
**Storage Conditions:** 250 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 0.15 % Triton X-100, 200 µg/ml BSA, (pH 7.4 @ 25°C)  
**Specification Version:** PS-R3140S/L v2.0

PstI-HF <sup>®</sup> Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R3140LVIAL	PstI-HF <sup>®</sup>	10013770	Pass
B7204SVIAL	CutSmart <sup>®</sup> Buffer	10010632	Pass
B7204SVIAL	CutSmart <sup>®</sup> Buffer	3081804	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10007497	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	0261805	Pass

Assay Name/Specification	Lot # 10013767
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart <sup>®</sup> Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H ] E. coli DNA and a minimum of 200 units of PstI-HF <sup>®</sup> incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 100-fold over-digestion of Lambda DNA with PstI-HF <sup>®</sup> , >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with PstI-HF <sup>®</sup> .	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart <sup>®</sup> Buffer containing 1 µg of Lambda DNA and a minimum of 200 units of PstI-HF <sup>®</sup> incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<b>Protein Purity Assay (SDS-PAGE)</b>	Pass

Assay Name/Specification	Lot # 10013767
PstI-HF <sup>®</sup> is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	

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



Tony Spear-Alfonso  
Production Scientist  
14 May 2018



Michael Tonello  
Packaging Quality Control Inspector  
29 Jun 2018