

## New England Biolabs Certificate of Analysis

**Product Name:** PstI-HF<sup>®</sup>  
**Catalog Number:** R3140M  
**Concentration:** 100,000 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:** 10142642  
**Expiration Date:** 02/2024  
**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-R3140T/M v2.0

| PstI-HF <sup>®</sup> Component List |                               |            |                      |
|-------------------------------------|-------------------------------|------------|----------------------|
| NEB Part Number                     | Component Description         | Lot Number | Individual QC Result |
| R3140M VIAL                         | PstI-HF <sup>®</sup>          | 10138611   | Pass                 |
| B7024A VIAL                         | Gel Loading Dye, Purple (6X)  | 10130600   | Pass                 |
| B6004S VIAL                         | rCutSmart <sup>™</sup> Buffer | 10136929   | Pass                 |

| Assay Name/Specification  | Lot # 10142642 |
|---|----------------|
| <b>Protein Purity Assay (SDS-PAGE)</b><br>PstI-HF <sup>®</sup> is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.   | Pass           |
| <b>Non-Specific DNase Activity (16 Hour)</b><br>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>Ligation and Recutting (Terminal Integrity)</b><br>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>Exonuclease Activity (Radioactivity Release)</b><br>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           |

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

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17 Mar 2022



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