

## New England Biolabs Certificate of Analysis

**Product Name:** PvuII-HF®  
**Catalog Number:** R3151M  
**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° in a total reaction volume of 50 µl.  
**Packaging Lot Number:** 10125580  
**Expiration Date:** 10/2023  
**Storage Temperature:** -20°C  
**Storage Conditions:** 200 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-R3151M v1.0

PvuII-HF® Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R3151M VIAL	PvuII-HF®	10125577	Pass
B7024A VIAL	Gel Loading Dye, Purple (6X)	10093123	Pass
B6004S VIAL	rCutSmart™ Buffer	10121395	Pass

Assay Name/Specification	Lot # 10125580
<b>Ligation and Recutting (Terminal Integrity)</b> After a 10-fold over-digestion of Lambda DNA with PvuII-HF™, >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 PvuII-HF™.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 100 Units of PvuII-HF™ 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>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart™ 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 PvuII-HF™ incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 200 Units of PvuII-HF™ incubated for 4 hours at 37°C results in <10%	Pass

Assay Name/Specification	Lot # 10125580
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](http://www.neb.com/trademarks) for additional information.



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Penghua Zhang  
Production Scientist  
20 Oct 2021



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Michael Tonello  
Packaging Quality Control Inspector  
20 Oct 2021