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New England Biolabs Certificate of Analysis

Product Name: Pvul-HF®
Catalog Number: R3150S
Concentration: 20,000 U/ml

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg

of pXba DNA in 1 hour at 37°C in a total reaction volume of 50 μl.

Packaging Lot Number: 10079775 Expiration Date: 04/2022 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-R3150S/L v1.0

Pvul-HF® Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R3150SVIAL	Pvul-HF®	10071129	Pass	
B7204SVIAL	CutSmart® Buffer	10078752	Pass	
B7024SVIAL	Gel Loading Dye, Purple (6X)	10075965	Pass	

Assay Name/Specification	Lot # 10079775
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and	Pass
a minimum of 200 Units of Pvul-HF [™] incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	
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 200 units of Pvul-HF™ incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of pXba DNA with Pvul-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 Pvul-HF™.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pXba DNA and a minimum of 200 Units of Pvul-HF™ incubated for 16 hours at 37°C results in a DNA pattern free	Pass



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Assay Name/Specification	Lot # 10079775
of detectable nuclease degradation 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 for additional information.

Penghaa Zhang Production Scientist

17 Aug 2020

Michael Tonello

Packaging Quality Control Inspector

17 Aug 2020

