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New England Biolabs Certificate of Analysis

Product Name: Pvul-HF®
Catalog Number: R3150L
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: 10061063
Expiration Date: 10/2021
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	
R3150LVIAL	Pvul-HF®	10056491	Pass	
B7204SVIAL	CutSmart® Buffer	10055737	Pass	
B7024SVIAL	Gel Loading Dye, Purple (6X)	10053980	Pass	

Assay Name/Specification	Lot # 10061063
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



R3150L / Lot: 10061063 Page 1 of 2

Assay Name/Specification	Lot # 10061063
of detectable nuclease degradation as determined by agarose gel electrophoresis.	

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

Jianying Luo Production Scientist

03 Oct 2019

Jay Minichiello

Packaging Quality Control Inspector

19 Dec 2019