

240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

## New England Biolabs Certificate of Analysis

Product Name: Pvull
Catalog Number: R0151S
Concentration: 10,000 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: 10160143
Expiration Date: 05/2024
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-R0151S/L v1.0

Pvull Component List				
<b>NEB Part Number</b>	<b>Component Description</b>	Lot Number	Individual QC Result	
R0151SVIAL	Pvull	10151757	Pass	
B6003SVIAL	NEBuffer™ r3.1	10146825	Pass	

Assay Name/Specification	Lot # 10160143
Protein Purity Assay (SDS-PAGE) Pvull is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of Lambda DNA and a minimum of 10 Units of Pvull 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> After a 10-fold over-digestion of Lambda DNA with PvulI, >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 PvulI.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [ ³H] E. coli DNA and a minimum of 100 units of Pvull incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass



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Assay Name/Specification	Lot # 10160143
Endonuclease Activity (Nicking)	Pass
A 50 µl reaction in NEBuffer 3.1 containing 1 µg of supercoiled PhiX174 DNA and a	
minimum of 50 Units of Pvull incubated for 4 hours at 37°C results in <10%	
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.

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Penghaa Zhang Production Scientist

07 Sep 2022

Erin Varney

Packaging Quality Control Inspector

07 Sep 2022



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