

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: Pvul
Catalog Number: R0150L
Concentration: 10,000 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.

Lot Number: 10027220
Expiration Date: 10/2020
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-R0150S/L v1.0

Pvul Component List				
<b>NEB Part Number</b>	Component Description	Lot Number	Individual QC Result	
R0150LVIAL	Pvul	10027221	Pass	
B7203SVIAL	NEBuffer™ 3.1	10021112	Pass	
B7024SVIAL	Gel Loading Dye, Purple (6X)	10021129	Pass	

Assay Name/Specification	Lot # 10027220
Endonuclease Activity (Nicking) A 50 μl reaction in NEBuffer 3.1 containing 1 μg of supercoiled PhiX174 DNA and a minimum of 50 Units of Pvul incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	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 50 units of Pvul incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 20-fold over-digestion of pXba DNA with Pvul, >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.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of pXba DNA and a minimum of 100 Units of Pvul incubated for 16 hours at 37°C results in a DNA pattern free of	Pass



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Assay Name/Specification	Lot # 10027220
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

01 Nov 2018

Michael Tonello

Packaging Quality Control Inspector

28 Nov 2018

