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New England Biolabs Certificate of Analysis

Product Name: Pvul
Catalog Number: R0150S
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:10027222Expiration Date:10/2020Storage 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			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0150SVIAL	Pvul	10027223	Pass
B7203SVIAL	NEBuffer™ 3.1	10021111	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10021128	Pass

Assay Name/Specification	Lot # 10027222
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
Ligation and Recutting (Terminal Integrity) 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 # 10027222
detectable nuclease degradation as determined by agarose gel electrophoresis.	

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

Tony Spear-Alfonso Production Scientist

11 Oct 2018

Michael Tonello

Packaging Quality Control Inspector

02 Nov 2018



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