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New England Biolabs Certificate of Analysis

Product Name: Dpnl
Catalog Number: R0176S
Concentration: 20,000 U/ml

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

of pBR322 DNA (dam methylated) in 1 hour at 37°C in a total reaction

volume of 50 μl.

Lot Number: 10022529
Expiration Date: 07/2020
Storage Temperature: -20°C

Storage Conditions: 400 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%

Glycerol, 200 μg/ml BSA

Specification Version: PS-R0176S/L v1.0

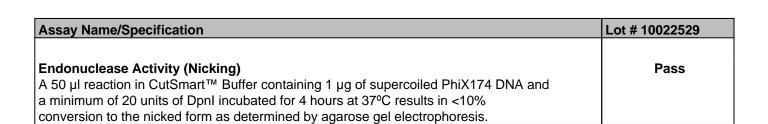
DpnI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0176SVIAL	DpnI	10014147	Pass
B7204SVIAL	CutSmart® Buffer	10018442	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10018415	Pass

Assay Name/Specification	Lot # 10022529
Protein Purity Assay (SDS-PAGE)	Pass
DpnI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	
Non-Specific DNase Activity (16 Hour) A 50 μl reaction in CutSmart™ Buffer containing 1 μg of pBR322 DNA and a minimum of	Pass
100 units of DpnI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	
Ligation and Recutting (Terminal Integrity)	Pass
After a 20-fold over-digestion of pBR322 DNA with DpnI, ~25% 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 DpnI.	
Exonuclease Activity (Radioactivity Release)	Pass
A 50 μl reaction in CutSmart™ Buffer containing 1 μg of a mixture of single and	1 433
double-stranded [³ H] E. coli DNA and a minimum of 200 units of DpnI incubated for 4	
hours at 37°C releases <0.1% of the total radioactivity.	



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

Jianying Luo Production Scientist

16 Jul 2018

Michael Tonello

Packaging Quality Control Inspector

26 Sep 2018

