

New England Biolabs Certificate of Analysis

Product Name: DpnII
Catalog Number: R0543T
Concentration: 50,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (dam-) in 1 hour at 37°C in a total reaction volume of 50 µl.
Lot Number: 10008607
Expiration Date: 03/2020
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-R0543T/M v1.0

| DpnII Component List | | | |
|----------------------|------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0543TVIAL | DpnII | 0161803 | Pass |
| B7024SVIAL | Gel Loading Dye, Purple (6X) | 10010200 | Pass |
| B0543SVIAL | NEBuffer™ DpnII | 0091805 | Pass |

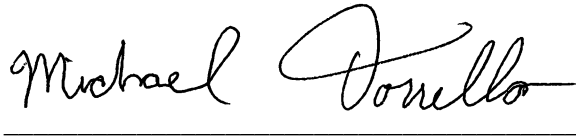
| Assay Name/Specification | Lot # 10008607 |
|---|----------------|
| Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer DpnII containing 1 µg of supercoiled PhiX174 DNA and a minimum of 30 Units of DpnII incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis. | Pass |
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer DpnII containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 100 units of DpnII 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 Lambda dam- DNA with DpnII, >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 DpnII. | Pass |
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer DpnII containing 1 µg of Lambda dam- DNA and a minimum | Pass |

| Assay Name/Specification | Lot # 10008607 |
|---|--------------------|
| <p>of 100 units of DpnII incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p> <p>Protein Purity Assay (SDS-PAGE) DpnII is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</p> | <p>Pass</p> |

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



Tony Spear-Alfonso
Production Scientist
25 May 2018



Michael Tonello
Packaging Quality Control Inspector
24 Jul 2018