

New England Biolabs Certificate of Analysis

Product Name: TaqI-v2
Catalog Number: R0149T
Concentration: 100,000 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 65°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10135269
Expiration Date: 09/2023
Storage Temperature: -20°C
Storage Conditions: 300 mM NaCl , 10 mM Tris-HCl , 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol , 500 µg/ml BSA, (pH 7.4 @ 25°C)
Specification Version: PS-R0149T/M v2.0

| TaqI-v2 Component List | | | |
|------------------------|-----------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0149TVIAL | TaqI-v2 | 10122724 | Pass |
| B6004SVIAL | rCutSmart™ Buffer | 10121395 | Pass |

| Assay Name/Specification | Lot # 10135269 |
|--|----------------|
| <p>Functional Testing (15 minute Digest) A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda DNA and 1 µl of TaqI-v2 incubated for 15 minutes at 65°C results in complete digestion as determined by agarose gel electrophoresis.</p> | Pass |
| <p>RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of TaqI-v2 is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p> | Pass |
| <p>Protein Purity Assay (SDS-PAGE) TaqI-v2 is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p> | Pass |
| <p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda DNA and a minimum of 200 units of TaqI-v2 incubated for 16 hours at 65°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p> | Pass |

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| <p>Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of Lambda DNA with TaqI-v2, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 25°C. Of these ligated fragments, >95% can be recut with TaqI-v2.</p> | Pass |
| <p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 200 units of TaqI-v2 incubated for 4 hours at 65°C releases <0.1% of the total radioactivity.</p> | Pass |

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

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Penghua Zhang
Production Scientist
18 Jan 2022



Michael Tonello
Packaging Quality Control Inspector
18 Jan 2022