

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.
Lot Number: 10055046
Expiration Date: 09/2021
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	10055047	Pass
B7204SVIAL	CutSmart® Buffer	10053981	Pass

Assay Name/Specification	Lot # 10055046
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.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³ H] 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.	Pass
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.	Pass
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	Pass

Assay Name/Specification	Lot # 10055046
by agarose gel electrophoresis.	
<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

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



Jianying Luo
Production Scientist
12 Sep 2019



Jay Minichiello
Packaging Quality Control Inspector
25 Sep 2019