NEW ENGLAND BioLabs Inc.
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New England Biolabs
Certificate of Analysis

Product Name:	*TaqI-v2*
Catalog Number:	*R0149M*
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:	*10092139*
Expiration Date:	*12/2021*
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**
R0149MVIAL	TaqI-v2	10063028	**Pass**
B7204SVIAL	CutSmart® Buffer	10089402	**Pass**

Assay Name/Specification	**Lot # 10092139**
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**
Protein Purity Assay (SDS-PAGE) TaqI-v2 is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**
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 65ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**
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 25ºC. Of these ligated fragments, >95% can be recut with TaqI-v2.	**Pass**

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Assay Name/Specification	Lot # 10092139
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 65ºC results in complete digestion as determined by agarose gel electrophoresis.	**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**

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Penghua Zhang
Production Scientist
24 Nov 2020

Josh Hersey
Packaging Quality Control Inspector
24 Nov 2020