

New England Biolabs Certificate of Analysis

Product Name: TspMI
Catalog Number: R0709S
Concentration: 5,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of pUCAdeno plasmid DNA in 1 hour at 75°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10091397
Expiration Date: 06/2021
Storage Temperature: -20°C
Storage Conditions: 300 mM NaCl, 20 mM Tris-HCl (pH 8.0), 1 mM DTT, 1 mM EDTA, 50% Glycerol, 0.10% Triton X-100, 200 µg/ml BSA
Specification Version: PS-R0709S/L v1.0

TspMI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0709SVIAL	TspMI	10091398	Pass
B7204SVIAL	CutSmart® Buffer	10091030	Pass

Assay Name/Specification	Lot # 10091397
<p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 5 Units of TspMI incubated for 4 hours at 75°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</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 50 units of TspMI incubated for 4 hours at 75°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of pUCAdeno DNA with TspMI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 25°C. Of these ligated fragments, >75% can be recut with TspMI.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pUCAdeno DNA and a minimum of 5 Units of TspMI incubated for 16 hours at 75°C results in a DNA pattern free of</p>	Pass

Assay Name/Specification	Lot # 10091397
detectable nuclease degradation as determined by agarose gel electrophoresis.	

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
13 Dec 2020



Josh Hersey
Packaging Quality Control Inspector
13 Dec 2020