

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 pBC4 plasmid DNA in 1 hour at 75°C in a total reaction volume of 50 µl.*
Packaging Lot Number: *10243518*
Expiration Date: *11/2024*
Storage Temperature: *-20°C*
Storage Conditions: *20 mM Tris-HCl, 300 mM NaCl, 1 mM DTT, 1 mM EDTA, 50% Glycerol, 0.10% Triton® X-100, 200 µg/ml BSA, (pH 8.0 @ 25C)*
Specification Version: *PS-R0709S/V v2.0*

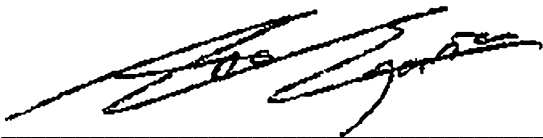
TspMI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0709SVIAL	TspMI	10238058	Pass
B6004SVIAL	rCutSmart™ Buffer	10241728	Pass

Assay Name/Specification	Lot # 10243518
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.	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 50 units of TspMI incubated for 4 hours at 75°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of pBC4 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.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of pBC4 DNA and a minimum of 5 units of TspMI incubated for 16 hours at 75°C results in a DNA pattern free of	Pass

Assay Name/Specification	Lot # 10243518
detectable nuclease degradation as determined by agarose gel electrophoresis.	

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

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Ana Egana
Production Scientist
27 Jun 2024



Michael Tonello
Packaging Quality Control Inspector
27 Jun 2024