NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

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.*
Lot Number:	*10015752*
Expiration Date:	*01/2019*
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	10015753	**Pass**
B7204SVIAL	CutSmart® Buffer	10010632	**Pass**

Assay Name/Specification	Lot # 10015752
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 75ºC 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 75ºC releases <0.1% of the total radioactivity.	**Pass**
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 25ºC. 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 pUCAdeno DNA and a minimum of 5 Units of TspMI incubated for 16 hours at 75ºC results in a DNA pattern free of	**Pass**

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Assay Name/Specification	Lot # 10015752
detectable nuclease degradation as determined by agarose gel electrophoresis.	

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

Tony Spear-Alfonso
Production Scientist
12 Jun 2018

Michael Tonello
Packaging Quality Control Inspector
19 Jul 2018