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New England Biolabs Certificate of Analysis

Product Name: MspA1I
Catalog Number: R0577S
Concentration: 10,000 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 37°C in a total reaction volume of 50 μl.

Packaging Lot Number: 10131750
Expiration Date: 12/2022
Storage Temperature: -20°C

Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%

Glycerol, 500 μg/ml BSA

Specification Version: PS-R0577S/L v1.0

MspA1I Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0577SVIAL	MspA1I	10131749	Pass	
B6004SVIAL	rCutSmart™ Buffer	10126633	Pass	

Assay Name/Specification	Lot # 10131750
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 MspA1I incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with MspA1I, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with MspA1I.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 50 Units of MspA1l incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

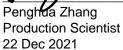
This product has been tested and shown to be in compliance with all specifications.

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NEW ENGLAND

Michael Tonello

Packaging Quality Control Inspector

22 Dec 2021

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