

New England Biolabs Certificate of Analysis

Product Name: *MseI*
Catalog Number: *R0525L*
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.*
Lot Number: *10015078*
Expiration Date: *03/2020*
Storage Temperature: *-20°C*
Storage Conditions: *50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA*
Specification Version: *PS-R0525S/L v1.0*

MseI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0525LVIAL	MseI	0501803	Pass
B7204SVIAL	CutSmart® Buffer	10010634	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10007497	Pass

Assay Name/Specification	Lot # 10015078
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 30 units of MseI incubated for 4 hours at 37°C releases <0.2% of the total radioactivity.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 100 Units of MseI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with MseI, >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 MseI.	Pass

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



Tony Spear-Alfonso
Production Scientist
14 May 2018



Josh Hersey
Packaging Quality Control Inspector
06 Jul 2018