

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 rCutSmart Buffer in 1 hour at 37°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10170405
Expiration Date: 11/2024
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml rAlbumin (pH 7.4 @ 25°C)
Specification Version: PS-R0525S/L v2.0

MseI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0525LVIAL	MseI	10170402	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10163561	Pass
B6004SVIAL	rCutSmart™ Buffer	10165692	Pass

Assay Name/Specification	Lot # 10170405
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
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in rCutSmart™ 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
Protein Purity Assay (SDS-PAGE) MseI is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
Functional Testing (15 minute Digest) A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of Lambda DNA and 1 µl of MseI incubated for 15 minutes at 37°C results in complete digestion as determined by	Pass

