

New England Biolabs Certificate of Analysis

Product Name: *Mboll*
Catalog Number: *R0148L*
Concentration: *5,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (dam-) in 1 hour at 37°C in a total reaction volume of 50 µl.*
Packaging Lot Number: *10149494*
Expiration Date: *04/2024*
Storage Temperature: *-20°C*
Storage Conditions: *250 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 0.15% Triton X-100, 200 µg/ml BSA*
Specification Version: *PS-R0148S/L v1.0*

MbolI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0148LVIAL	MbolI	10149493	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10144740	Pass
B6004SVIAL	rCutSmart™ Buffer	10148729	Pass

Assay Name/Specification	Lot # 10149494
Protein Purity Assay (SDS-PAGE) MbolI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	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 5 units of MbolI 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 dam- DNA with MbolI, ~50% 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 MbolI.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda dam- DNA and a minimum of 5 Units of MbolI incubated for 16 hours at 37°C results in a DNA pattern	Pass

Assay Name/Specification	Lot # 10149494
free of 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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Production Scientist
09 May 2022



Erin Varney
Packaging Quality Control Inspector
09 May 2022