NEW ENGLAND BioLabs® Inc.

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New England Biolabs
Product Specification

Product Name:	*MspI Methyltransferase*
Catalog #:	*M0215S*
Concentration:	*5,000 units/ml*
Unit Definition:	*One unit is defined as the amount of enzyme required to protect 1 µg Lambda DNA in 1 hour at 37°C in a total reaction volume of 10 µl against cleavage by MspI restriction endonuclease.*
Shelf Life:	*24 months*
Storage Temp:	*-20°C*
Storage Conditions:	*50 mM Tris-HCl, 50 mM NaCl, 10 mM EDTA, 5 mM βME, 200 µg/ml BSA, 50% Glycerol, (pH 7.5 @ 25°C)*
Specification Version:	*PS-M0215S v1.0*
Effective Date:	*16 May 2018*

Assay Name/Specification (minimum release criteria)
Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in NEBuffer 2 containing 1 µg of a mixture of single and double-stranded [^{3}H] *E. coli* DNA and a minimum of 15 units of MspI Methyltransferase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.
Functional Testing (Methyltransferase) - A 10 µl reaction in MspI Methyltransferase Reaction Buffer supplemented with 80 µM SAM containing 1 µg of Lambda DNA and 1 unit of MspI Methyltransferase incubated for 1 hour at 37°C followed by heat inactivation results in ≥ 95% protection from digestion with 5 units of MspI in NEBuffer 2 with 10 mM $MgCl_2$ incubated at 37°C for 30 minutes as determined by agarose gel electrophoresis.
Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in NEBuffer 2 containing 1 µg of Lambda-HindIII DNA and a minimum of 15 units of MspI Methyltransferase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

Date 16 May 2018

Derek Robinson
Director of Quality Control

ISO 9001 Registered Quality Management
ISO 14001 Registered Environmental Management
ISO 13485 Registered Medical Devices