

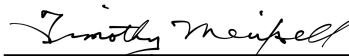
New England Biolabs Certificate of Analysis

Product Name: dam Methyltransferase
Catalog #: M0222S/L
Concentration: 8,000 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 MboI restriction endonuclease.
Lot #: 0151801
Assay Date: 01/2018
Expiration Date: 01/2020
Storage Temp: -20°C
Storage Conditions: 50 mM Tris-HCl, 50 mM KCl, 10 mM EDTA, 1 mM DTT, 200 µg/ml BSA, 50% Glycerol, (pH 7.5 @ 25°C)
Specification Version: PS-M0222S/L v1.0
Effective Date: 16 May 2018

Assay Name/Specification (minimum release criteria)	Lot #0151801
Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in NEBuffer 2 containing 1 µg of a mixture of single and double-stranded [³ H] <i>E. coli</i> DNA and a minimum of 80 units of dam Methyltransferase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Functional Testing (Methyltransferase) - A 10 µl reaction in dam Methyltransferase Reaction Buffer supplemented with 80 µM SAM containing 1 µg of Lambda DNA and 1 unit of dam Methyltransferase incubated for 1 hour at 37°C followed by heat inactivation results in ≥ 95% protection from digestion with 10 units of MboI in NEBuffer 3 with 10 mM MgCl ₂ incubated at 37°C for 1 hour as determined by agarose gel electrophoresis.	Pass
Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in NEBuffer 2 containing 1 µg of HindIII digested Lambda DNA and a minimum of 80 units of dam Methyltransferase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass



Authorized by
Derek Robinson
16 May 2018



Inspected by
Timothy Meixsell
18 Jan 2018

