

New England Biolabs Certificate of Analysis

Product Name: *dam Methyltransferase*
Catalog Number: M0222L
Concentration: 8,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to protect 1 µg Lambda (*dam*-) DNA in 1 hour at 37°C in a total reaction volume of 10 µl against cleavage by MboI restriction endonuclease.
Packaging Lot Number: 10231020
Expiration Date: 06/2026
Storage Temperature: -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 v2.0

dam Methyltransferase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0222LVIAL	dam Methyltransferase	10245567	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10233985	Pass
B0222SVIAL	dam Methylase Buffer	10235244	Pass

Assay Name/Specification	Lot # 10231020
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 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 <i>dam</i> - 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

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

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Nicole Castagnozzi
Production Scientist
25 Jun 2024



Michael Tonello
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25 Jun 2024