

New England Biolabs Certificate of Analysis

Product Name: *dam Methyltransferase*
Catalog Number: *M0222S*
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 Mbol restriction endonuclease.*
Packaging Lot Number: *10084146*
Expiration Date: *10/2022*
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
M0222SVIAL	dam Methyltransferase	10085170	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10091460	Pass
B0222SVIAL	dam Methylase Buffer	10084792	Pass

Assay Name/Specification	Lot # 10084146
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 dam- 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 Mbol 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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Production Scientist
09 Feb 2021



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09 Feb 2021