

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: *10193030*
Expiration Date: *05/2025*
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	10190576	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10179342	Pass
B0222SVIAL	dam Methylase Buffer	10178451	Pass

Assay Name/Specification	Lot # 10193030
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.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



Jamie Souza
Production Scientist
16 May 2023



Michael Tonello
Packaging Quality Control Inspector
02 Jun 2023