

New England Biolabs Certificate of Analysis

Product Name: Human DNA (c-5) MTase (Dnmt1)
Catalog Number: M0230S
Concentration: 2,000 U/ml
Unit Definition: One unit is the amount of enzyme required to catalyze the transfer of 1 pmol of methyl group to poly dI.dC substrate in a total reaction volume of 25 µl in 30 minutes at 37°C.
Lot Number: 10009673
Expiration Date: 02/2019
Storage Temperature: -20°C
Storage Conditions: 50 mM Tris-HCl, 200 mM NaCl, 1 mM DTT, 1 mM EDTA, 50 % Glycerol, (pH 7.5 @ 25°C)
Specification Version: PS-M0230S/L v1.0

Human DNA (c-5) MTase (Dnmt1) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0230SVIAL	Human DNA (cytosine-5) Methyltransferase (Dnmt1)	0391802	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10008707	Pass
B9001SVIAL	Purified BSA	0071705	Pass
B0230SVIAL	Dnmt1 Reaction Buffer	0121802	Pass

Assay Name/Specification	Lot # 10009673
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 6 units of Human DNA (cytosine-5) Methyltransferase (Dnmt1) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 10 units of Human DNA (cytosine-5) Methyltransferase (Dnmt1) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of PhiX174-HaeIII DNA and a minimum of 6 units of Human DNA (cytosine-5) Methyltransferase (Dnmt1) incubated for	Pass

Assay Name/Specification	Lot # 10009673
<p>16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p> <p>RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 2 units of Human DNA (cytosine-5) Methyltransferase (Dnmt1) is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	<p>Pass</p>

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



Ben Penta
Production Scientist
06 Jun 2018



Michael Tonello
Packaging Quality Control Inspector
06 Jun 2018