

New England Biolabs Certificate of Analysis

Product Name: Human DNA (c-5) MTase (Dnmt1)
Catalog Number: M0230L
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: 10053616
Expiration Date: 08/2020
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 |
| M0230LVIAL | Human DNA (cytosine-5) Methyltransferase (Dnmt1) | 10053615 | Pass |
| B9003SVIAL | S-adenosylmethionine (SAM) | 10049759 | Pass |
| B9001SVIAL | Purified BSA | 10014762 | Pass |
| B0230SVIAL | Dnmt1 Reaction Buffer | 10043394 | Pass |

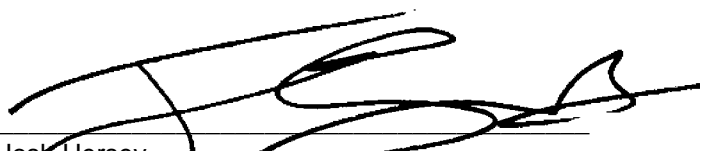
| Assay Name/Specification | Lot # 10053616 |
|---|----------------|
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 10 units of Human DNA (cytosine-5) Methyltransferase (Dnmt1) 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 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | Pass |
| 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 | Pass |

| Assay Name/Specification | Lot # 10053616 |
|--|--------------------|
| <p>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>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.</p> | <p>Pass</p> |

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



Tony Spear-Alfonso
Production Scientist
12 Sep 2018



Josh Hersey
Packaging Quality Control Inspector
12 Sep 2019