

Product Information

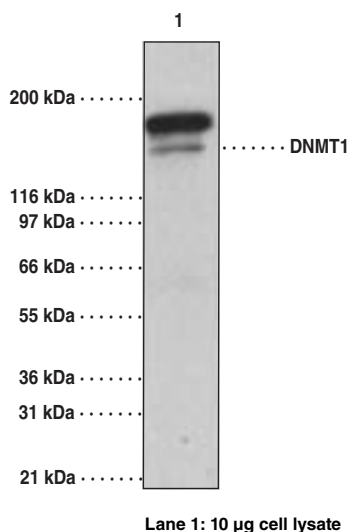


DNA Methyltransferase 1 Monoclonal Antibody (Clone 60B1220.1)

Item No. 13479

- Contents:** This vial contains 100 µg IgG in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide.
- Synonyms:** DNMT1
- Antigen:** Synthetic peptide corresponding to amino acids 637-650 (EKDDREDKENAFKR) of human DNMT1.
- Host:** Mouse, clone 60B1220.1
- Isotype:** IgG_{1κ}
- Cross Reactivity:** (+) Human, mouse, and zebrafish DNMT1
- Storage:** ≤6 months at 4°C; ≥6 months at -20°C
- Applications:** The recommended starting dilution for western blot is 2-4 µg/ml, 1-2 µg/ml for immunohistochemistry (paraffin-embedded sections), ChIP, and immunoprecipitation. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

Methylation of DNA at cytosine residues plays an important role in regulation of gene expression, genomic imprinting, and is essential for mammalian development. Hypermethylation of CpG islands in tumor suppressor genes or hypomethylation of bulk genomic DNA may be linked with development of cancer. To date, three families of mammalian DNA methyltransferase genes have been identified which include DNMT1, DNMT2, and DNMT3. DNMT1 is constitutively expressed in proliferating cells and inactivation of this gene causes global demethylation of genomic DNA and embryonic lethality. DNMT2 is expressed at low levels in adult tissues and its inactivation does not affect DNA methylation or maintenance of methylation. The DNMT3 family members, DNMT3a and DNMT3b, are strongly expressed in ES cells but their expression is down regulated in differentiating ES cells and is low in adult somatic tissue. DNMT1 co-purifies with the retinoblastoma (Rb) tumour suppressor gene product, E2F1, and HDAC1. DNMT1 also cooperates with Rb to repress transcription from promoters containing E2F-binding sites suggesting a link between DNA methylation, histone deacetylase, and sequence-specific DNA binding activity, as well as a growth-regulatory pathway that is disrupted in nearly all cancer cells.



Related Products

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

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Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our **Warranty and Limitation of Remedy** located on our website and in our catalog.

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