

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten! See the following pages for more information!



# Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

# Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Anti-DNMT1 Antibody [60B1220.1]

Mouse Anti-Human DNMT1 Monoclonal IgG1 Kappa Catalog No. SMC-200



### **Overview**

**Purification** 

Product Name
DNMT1 Antibody
Description
Mouse Anti-Human DNMT1 Monoclonal IgG1 Kappa
Species Reactivity
Human, Mouse, Fish, Zebrafish (Danio rerio)
Applications
WB, IHC, IP, ChIP
Antibody Dilution
WB (1:1000), ICC/IF (1:100); optimal dilutions for assays should be determined by the user.
Host Species
Mouse
Immunogen Species
Human
Immunogen
Raised against a synthetic peptide corresponding to amino acids 637-650 of human DNMT1
Concentration
1 mg/ml
Conjugates
Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated
Properties
Storage Buffer
PBS, 0.05% BSA, 0.05% sodium azide
PBS, 0.05% BSA, 0.05% sodium azide
PBS, 0.05% BSA, 0.05% sodium azide  Storage Temperature

Protein G Purified
Clonality
Monoclonal
Clone Number
60B1220.1
Isotype
IgG1 Kappa
Specificity
Detects ~180kDa. It will cross-react with mouse DNMT1.
Cite This Product
Mouse Anti-Human DNMT1 Monoclonal, Clone 60B1220.1 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-200)
Certificate Of Analysis
$2 \mu g/ml$ of SMC-200 was sufficient for detection of Dnmt1 in 10 $\mu g$ of mouse ES cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
Biological Description
Alternative Names  DNA Mtase Antibody, DNMT Antibody, MCMT Antibody, DNA methyltransferase 1 Antibody, AIM Antibody, CXXC9 Antibody, DNMT Antibody, DNA (cytosine-5)-methyltransferase 1 Antibody, CXXC-type zinc finger protein 9 Antibody, DNA methyltransferase Hsal Antibody
Research Areas
Cell Signaling, Organelle Markers, Post-translational Modifications
Cellular Localization
Cytoplasm, Endoplasmic Reticulum
Accession Number
NP_001370
Gene ID
1786

#### **Scientific Background**

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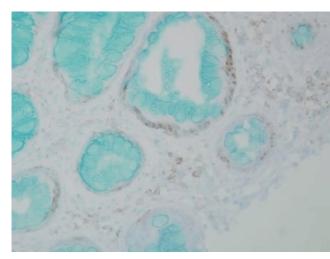
Methylation of DNA at cytosine residues plays an important role in regulation of gene expression, genomic imprinting and is essential for mammalian development. Hypermethylation of CpG islands in tumor suppressor genes or hypomethylation of bulk genomic DNA may be linked with development of cancer. To date, 3 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 (1-6).

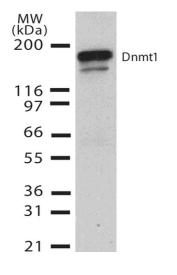
#### References

- 1. Bestor T., et al.(1988) J.Mol. Biol. 203: 971-983.
- 2. Yen R.W., Vertino P.M., Nelkin B.D., et al. (1992) Nucl. Acids Res. 20: 2287-2291.
- 3. Xie S., et al. (1999) Gene 236: 87-95.
- 4. Okano M., Bell D.W., Haber D.A. and Li E. (1999) Cell 99: 247-257.
- 5. Reik W. et al. (1999) J. Nat. Genet 23: 380-382.
- 6. Robertson K.D., et al. (2000) Nat Genet 25(3): 338-342.

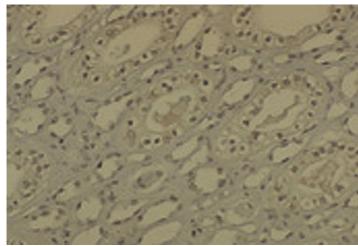
## **Product Images**



Immunohistochemistry analysis using Mouse Anti-DNMT1 Monoclonal Antibody, Clone 60B1220.1 (SMC-200). Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-DNMT1 Monoclonal Antibody (SMC-200) at 1:10000 for 12 hours at 4°C. Secondary Antibody: Biotin Goat Anti-Mouse at 1:2000 for 1 hour at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 200 µl for 2 minutes at RT. Magnification: 40x.



Western Blot analysis of Human H1299 cell lysate showing detection of DNMT1 protein using Mouse Anti-DNMT1 Monoclonal Antibody, Clone 60B1220.1 (SMC-200). Primary Antibody: Mouse Anti-DNMT1 Monoclonal Antibody (SMC-200) at 1:1000.



Immunohistochemistry analysis using Mouse Anti-DNMT1 Monoclonal Antibody, Clone 60B1220.1 (SMC-200). Tissue: medullar kidney tissue. Species: Mouse. Primary Antibody: Mouse Anti-DNMT1 Monoclonal Antibody (SMC-200) at 1:1000. Secondary Antibody: HRP/DAB Detection System: Biotinylated Goat Anti-Mouse, Streptavidin Peroxidase, DAB Chromogen (brown). Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain.

## **Product Citations (0)**

Currently there are no citations for this product.

### **Reviews**

There are no reviews yet.