Datasheet for ABIN2485996

anti-DNMT1 antibody (AA 637-650) (Atto 488)

3 Images

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Overview

Quantity:	100 µg
Target:	DNMT1
Binding Specificity:	AA 637-650
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This DNMT1 antibody is conjugated to Atto 488
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Chromatin Immunoprecipitation (ChIP)

Product Details

Immunogen:	Raised against a synthetic peptide corresponding to amino acids 637-650 of human DNMT1
Clone:	60B1220-1
Isotype:	IgG1 kappa
Specificity:	Detects ~180 kDa. It will cross-react with mouse DNMT1.
Cross-Reactivity:	Fish, Human, Mouse, Zebrafish (Danio rerio)
Purification:	Protein G Purified

Target Details

Target:	DNMT1

Target Details

Alternative Name:	DNMT1 (DNMT1 Products)
Background:	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).
Gene ID:	1786
NCBI Accession:	NP_001370
UniProt:	P26358
Pathways:	SARS-CoV-2 Protein Interactome, The Global Phosphorylation Landscape of SARS-CoV-2 Infection

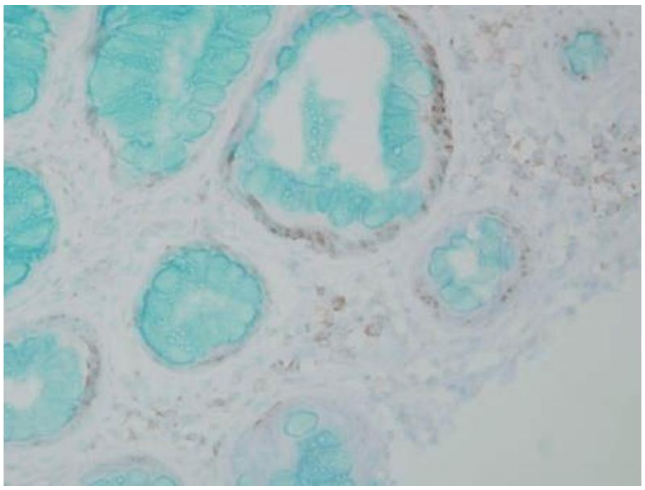
Application Details

Application Notes:	• WB (1:1000) • IHC (1:1000) • optimal dilutions for assays should be determined by the user.
Comment:	2 µg/ml of ABIN2485996 was sufficient for detection of Dnmt1 in 10 µg of mouse ES cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
Restrictions:	For Research Use only

Handling

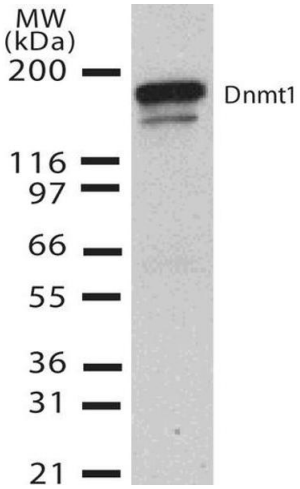
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

Images



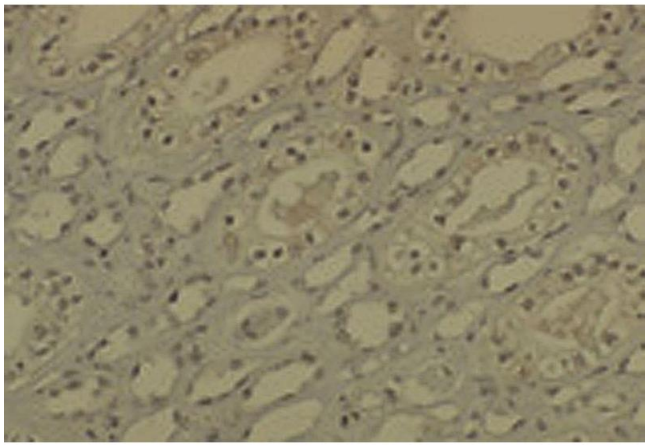
Immunohistochemistry

Image 1. Immunohistochemistry analysis using Mouse Anti-DNMT1 Monoclonal Antibody, Clone 60B1220.1 . Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-DNMT1 Monoclonal Antibody 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 Blotting

Image 2. Western Blot analysis of Human H1299 cell lysate showing detection of DNMT1 protein using Mouse Anti-DNMT1 Monoclonal Antibody, Clone 60B1220.1 . Primary Antibody: Mouse Anti-DNMT1 Monoclonal Antibody at 1:1000.



Immunohistochemistry

Image 3. Immunohistochemistry analysis using Mouse Anti-DNMT1 Monoclonal Antibody, Clone 60B1220.1 . Tissue: medullar kidney tissue. Species: Mouse. Primary Antibody: Mouse Anti-DNMT1 Monoclonal Antibody 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.

