

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DNMT1 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human DNMT1 Ala1381-Ala1587 Accession # P26358
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Knockout Validated	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

DNMT1 (DNA methyltransferase 1; also MCMT and CXXC-type Zn finger protein 9) is a 190 kDa member of the C5-methyltransferase family of enzymes. It is ubiquitous in expression, and appears during the S-phase of the cell cycle. DNMT1 catalyzes the attachment of a methyl group to the C5 position of CpG cytosines using AdoMet/adenosylmethionine as a co factor. This acts to silence select genes during X chromosome inactivation and tumorigenesis. Human DNMT1 is 1616 amino acids (aa) in length. It contains an N-terminal regulatory, homodimerization and target recognition region (aa 1-1100), a Gly-Lys linker segment (aa 1109-1120) and a catalytic domain (aa 1121-1616). It is acetylated, phosphorylated, and SUMOylated. There are multiple splice variants. There is a deletion of aa 1-336, alternative start sites at Met122 and 62 aa upstream of the standard start site, and a 17 aa substitution for Pro149. Over aa 1381-1587, human DNMT1 shares 87% aa identity with mouse DNMT1.

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