Human DNMT3B Alexa Fluor® 350-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7646U
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DNMT3B in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human DNMT3A is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human DNMT3B Ser145-Pro355 Accession # Q9UBC3
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 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

DNMT3B (DNA methyltransferase 3B; also DNA MTase HsaIIIB) is a 95-110 kDa member of the C5-methyltransferase family of enzymes. It is ubiquitously expressed in the embryo, and found associated with nuclear pericentric heterochromatin. Pericentric heterochromatin is chromatin composed of satellite repeats that lie adjacent to the centromere. DNA (cytosine-guanine dinucleotides) associated with this area undergos methylation, contributing to gene repression and proper chromosome segregation. Human DNMT3B is 853 amino acids (aa) in length. It contains a PWWP (Pro-Trp-Trp-Pro) domain that binds DNA (aa 225-283), a ADD (ATRX, DNMT3, DNMT3L) domain that contains a Zn-finger and binds to an unmethylated histone H3 tail (aa 423-555), and a class I AdoMet-MTase catalytic region that uses S-adenosyl-L-homocysteine as a substrate for methyl transfer (aa 577-847). There are at least five isoform variants. All show a deletion of aa 365-375. In addition, a second contains an alternative start site 12 aa upstream of the standard site, a third shows a deletion of aa 745-807, a fourth contains a Ser substitution for aa 744-853, while a fifth possesses a 45 aa substitution for aa 768-853. Over aa 1-355, human DNMT3B shares 73% aa sequence identity with mouse DNMT3B.

PRODUCT SPECIFIC NOTICES

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