

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DNMT3A in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human DNMT1 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 681630
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human DNMT3A Ala353-Lys486 Accession # Q9Y6K1
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.

Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	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

DNMT3A (DNA [cytosine-5]-methyltransferase 3A) is a 130 kDa member of the C5-methyltransferase family of molecules. It is expressed both during development and in virtually all adult tissues except for small intestine. DNMT3A is a nuclear protein that is found associated with heterochromatin. It possesses DNA methyltransferase activity, and acts in a complex with DNMT3L in embryonic stem cells, forming a (3A)₂:(3L)₂ heterotetramer. It also interacts with SETDB1 to form a transcriptional repressor. Human DNMT3A is 912 amino acids (aa) in length. It contains one ProTrpTrpPro domain (aa 292-350) and one ADD-type zinc finger region (aa 494-586). There is one 100 kDa splice variant termed DNMT3a2 that contains an alternative start site at Met224, and preferentially interacts with euchromatin. Other potential splice variants show a 16 aa substitution for aa 151-912, and a 24 aa substitution for aa 1-213. Over aa 353-486, human DNMT3A shares 96% aa identity with mouse DNMT3A.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.