

## Product datasheet for **TA336580**

### **DNMT3A Mouse Monoclonal Antibody [Clone ID: 64B1446]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	64B1446
<b>Applications:</b>	FC, IF, IHC, WB
<b>Recommend Dilution:</b>	WB: 2 ug/ml, ChIP: , FC: 1 ug per million cells, IF: 1:10-1:500, IHC-P: 5 ug/ml
<b>Reactivity:</b>	Human, Mouse
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1, kappa
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	This antibody was raised against bacteria expressed recombinant mouse Dnmt3a. The epitope was found to lie near the C-terminus (a.a. 705-908), see Chen et (2002) for details.
<b>Formulation:</b>	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Concentration:</b>	0.5 mg/ml
<b>Purification:</b>	Protein G purified
<b>Gene Name:</b>	DNA (cytosine-5-)-methyltransferase 3 alpha
<b>Database Link:</b>	<a href="#">NP 783328</a> <a href="#">Entrez Gene 13435</a> <a href="#">MouseEntrez Gene 1788</a> <a href="#">Human</a>
<b>Background:</b>	<p>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. Recently, it has been shown that naturally occurring mutations of Dnmt3b gene occurs in patients with a rare autosomal recessive disorder, termed ICF (immunodeficiency, centromeric instability, and facial anomalies) syndrome.</p>



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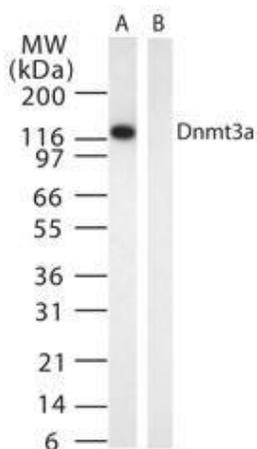
**Synonyms:** DNMT3A2; M.HsaIIIA; TBRS

**Note:** Western Blot: Detects a band of approximately 120 kDa (predicted molecular weight: 102 kDa). Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM sodium citrate buffer, pH 6.0 for 10-20 min followed by cooling at RT for 20 min. Use in chromatin immunoprecipitation reported in scientific literature (PMID 24623306)

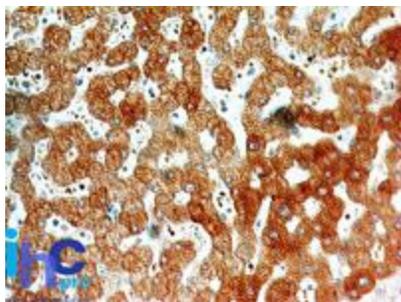
**Protein Families:** Druggable Genome

**Protein Pathways:** Cysteine and methionine metabolism, Metabolic pathways

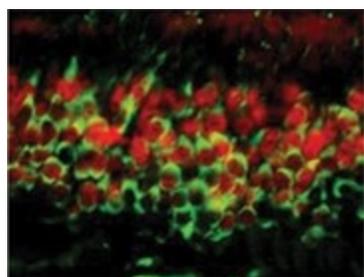
**Product images:**



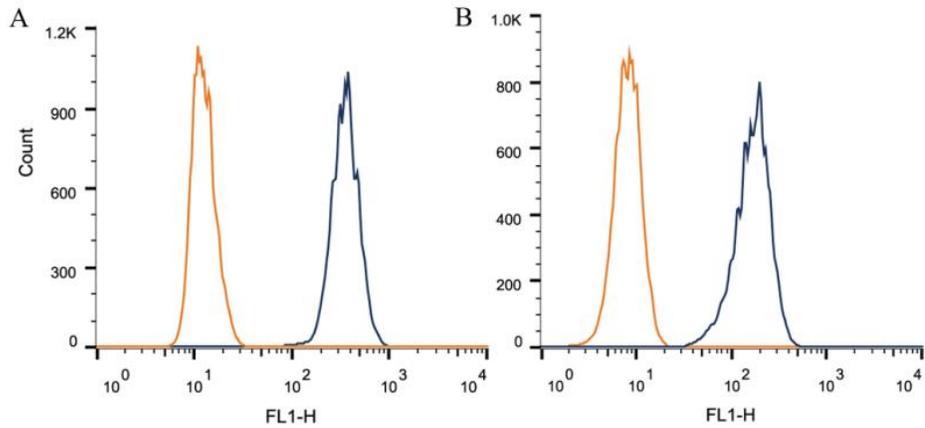
Western Blot: Dnmt3a Antibody (64B1446) TA336580 - Analysis of (A) Dnmt3a transfected 293 cell lysate and (B) untransfected 293 cell lysate using Dnmt3a antibody at 1 ug/ml.



Immunohistochemistry-Paraffin: Dnmt3a Antibody (64B1446) TA336580 - Formalin-fixed, paraffin-embedded human liver stained with Dnmt3a antibody at 5 ug/ml. Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM sodium citrate b



Immunocytochemistry/Immunofluorescence: Dnmt3a Antibody (64B1446) TA336580 - Expression of Dnmt3a in the nuclei of post-mitotic neurons in the olfactory epithelium (OE). DNMT3a (red) is co-expressed with neuron-specific tubulin (green) throughout the de



Flow Cytometry: Dnmt3a Antibody (64B1446) TA336580 - Intracellular flow cytometric staining of  $1 \times 10^6$  CHO (A) and HEK-293 (B) cells using Dnmt3a antibody (dark blue). Isotype control shown in orange. An antibody concentration of  $1 \mu\text{g}/1 \times 10^6$  cells was