

### Dnmt2 Antibody

Rabbit Polyclonal Antibody Catalog # ABV10357

## **Specification**

# **Dnmt2 Antibody - Product Information**

Application Primary Accession Reactivity Host Clonality Isotype Calculated MW WB, IF <u>O55055</u> Human, Mouse Rabbit Polyclonal Rabbit IgG 46794

## **Dnmt2 Antibody - Additional Information**

Gene ID 13434

Application & Usage

Western blotting (0.5-4 µg/ml) and immunofluorescence. However, the optimal concentrations should be determined individually. The antibody recognizes 42 kDa Dnmt 2 of human and mouse origins. Mouse testes tissue lysate can be use as a positive control.

Other Names Dnmt2, TRDMT1, RNMT1, OTTHUMP00000045198, cytosine-5-methyltransferase, EC 2.1.1.29

Target/Specificity DNMT2

Antibody Form Liquid

Appearance Colorless liquid

**Formulation** 

100  $\mu$ g (0.5 mg/ml) affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

Handling The antibody solution should be gently mixed before use.

Reconstitution & Storage -20 °C

**Background Descriptions** 



Precautions

Dnmt2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **Dnmt2 Antibody - Protein Information**

Name Trdmt1

Synonyms Dnmt2 {ECO:0000303|PubMed:16424344}, Met

Function

Specifically methylates cytosine 38 in the anticodon loop of tRNA(Asp) (PubMed:<a href="http://www.uniprot.org/citations/21183079" target="\_blank">21183079</a>, PubMed:<a href="http://www.uniprot.org/citations/22885326" target="\_blank">22885326</a>, PubMed:<a href="http://www.uniprot.org/citations/26271101" target="\_blank">26271101</a>). Has higher activity on tRNA(Asp) modified with queuosine at position 34 (By similarity).

Cellular Location Cytoplasm {ECO:0000250|UniProtKB:014717}.

**Tissue Location** 

Highly expressed in thymus, testis, and at much lower levels in spleen, lung, brain, heart, kidney, liver, skeletal muscle and embryonic stem cells.

## Dnmt2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

**Dnmt2 Antibody - Images** 

# **Dnmt2 Antibody - 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. Dnmt2 contains all the sequence motifs diagnostic of DNA (cytosine-5)-methyltransferases but appears to lack the large N-terminal regulatory domain common to other eukaryotic methyltransferases.