

### **TRMT1 Polyclonal Antibody**

Purified Rabbit Polyclonal Antibody (Pab) **Catalog # AP56575** 

### **Specification**

### **TRMT1 Polyclonal Antibody - Product Information**

Application

**Primary Accession** Reactivity

Host Clonality Calculated MW Physical State Immunogen

**Epitope Specificity** 

Isotype **Purity** 

affinity purified by Protein A

WB, IHC-P, IHC-F, IF, ICC, E

**09NXH9** 

Rat, Pig, Bovine

**Rabbit Polyclonal 72 KDa** Liquid

KLH conjugated synthetic peptide derived

from human TRMT1

501-600/659

laG

Buffer

0.01M TBS (pH7.4) with 1% BSA, 0.02%

Proclin300 and 50% Glycerol.

**SIMILARITY Contains 1 C3H1-type zinc finger.** Important Note

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

# **Background Descriptions**

Transfer RNA (tRNA) modifications help regulate the efficiency of mRNA translation by maintaining the correct reading frames. N(2),N(2)-dimethylguanosine tRNA methyltransferase, also known as TRMT1 or tRNA(guanine-26,N(2)-N(2)) methyltransferase, is a 659 amino acid enzyme that is responsible for tRNA modifications in eukaryotes. Using S-adenosyl-L-methionine as a methyl donor, TRMT1 dimethylates a single quanine residue at position 26 of tRNA. TRMT1, which was initially identified in yeast and C. elegans, has a 26% and 31% sequence identity to its yeast and C. elegans homologs, respectively. There are two isoforms of TRMT1 produced by alternative splicing events. The TRMT1 gene maps to chromosome 19p13.13 and mutations in this gene lead to abrogated enzyme activity and a decrease in protein levels.

### **TRMT1** Polyclonal Antibody - Additional Information

#### Gene ID 55621

### **Other Names**

tRNA (guanine(26)-N(2))-dimethyltransferase, 2.1.1.216, tRNA 2, 2-dimethylguanosine-26 methyltransferase, tRNA(guanine-26, N(2)-N(2)) methyltransferase, tRNA(m(2, 2)G26)dimethyltransferase, TRMT1

#### Dilution

<span class ="dilution WB">WB~~1:1000</span><br \><span class</pre> ="dilution\_IHC-P">IHC-P~~N/A</span><br/>span class



="dilution\_IHC-F">IHC-F~~N/A</span><br/>span class ="dilution\_IF">IF~~1:50~200</span><br/>span class ="dilution\_ICC">ICC~~N/A</span><br/>><span class ="dilution\_E">E~~N/A</span>

### **Format**

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

#### **Storage**

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

### **TRMT1** Polyclonal Antibody - Protein Information

Name TRMT1 {ECO:0000303|PubMed:26308914, ECO:0000312|HGNC:HGNC:25980}

#### **Function**

Dimethylates a single guanine residue at position 26 of most nuclear- and mitochondrial-encoded tRNAs using S-adenosyl-L-methionine as donor of the methyl groups (PubMed:<a href="http://www.uniprot.org/citations/10982862" target="\_blank">10982862</a>, PubMed:<a href="http://www.uniprot.org/citations/28784718" target="\_blank">28784718</a>, PubMed:<a href="http://www.uniprot.org/citations/37204604" target="\_blank">37204604</a>, PubMed:<a href="http://www.uniprot.org/citations/37204604" target="\_blank">39786990</a>). tRNA guanine(26)-dimethylation is required for redox homeostasis and ensure proper cellular proliferation and oxidative stress survival (PubMed:<a href="http://www.uniprot.org/citations/28784718" target=" blank">28784718</a>).

#### **Cellular Location**

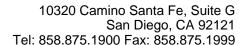
[Isoform 1]: Mitochondrion

### **TRMT1 Polyclonal Antibody - Protocols**

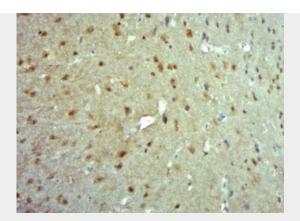
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## TRMT1 Polyclonal Antibody - Images







Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (TRMT1) Polyclonal Antibody, Unconjugated (bs-17142R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.