

# TRMT1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP56575

## Product Information

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<b>Application</b>	WB, IHC-P, IHC-F, IF, ICC, E
<b>Primary Accession</b>	<a href="#">Q9NXH9</a>
<b>Reactivity</b>	Rat, Pig, Bovine
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	72234
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human TRMT1
<b>Epitope Specificity</b>	501-600/659
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A
<b>Buffer</b>	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
<b>SIMILARITY</b>	Contains 1 C3H1-type zinc finger.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	<p>Transfer RNA (tRNA) modifications help regulate the efficiency of mRNA translation by maintaining the correct reading frames.</p> <p>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 guanine residue at position 26 of tRNA. TRMT1, which was initially identified in yeast and <i>C. elegans</i>, has a 26% and 31% sequence identity to its yeast and <i>C. elegans</i> 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.</p>

## Additional Information

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<b>Gene ID</b>	55621
<b>Other Names</b>	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
<b>Dilution</b>	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
<b>Format</b>	0.01M TBS(pH7.4) with 1% BSA, 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.

## Protein Information

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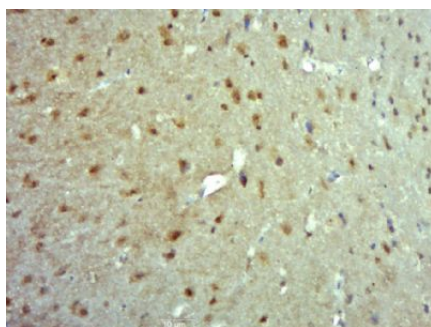
**Name** TRMT1 {ECO:0000303 | PubMed:26308914, ECO:0000312 | HGNC:HGNC:25980}

**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:[10982862](#), PubMed:[28784718](#), PubMed:[37204604](#), PubMed:[39786990](#)). tRNA guanine(26)-dimethylation is required for redox homeostasis and ensure proper cellular proliferation and oxidative stress survival (PubMed:[28784718](#)).

**Cellular Location** [Isoform 1]: Mitochondrion

## Images

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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 (AP56575) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.