10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

TRMT1 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP56575

Specification

TRMT1 Polyclonal Antibody - Product Information

Application	**WB, IHC-P, IHC-F, IF, ICC, E**
Primary Accession	Q9NXH9
Reactivity	**Rat, Pig, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**72 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human TRMT1**
Epitope Specificity	**501-600/659**
Isotype	**IgG**

Purity
affinity purified by Protein A

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 guanine 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
WB~~1:1000<br \>IHC-P~~N/A<br \><span class

="dilution_IHC-F">IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Storage
Store at -20 ℃ 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 ℃.

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: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

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

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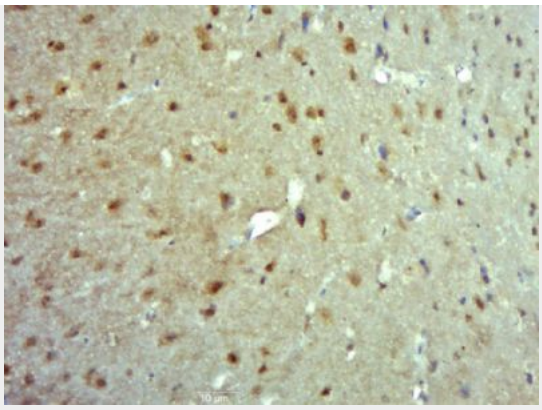

Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (TRMT1) Polyclonal Antibody,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