

# TRMT12 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP56576

#### **Product Information**

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

Primary Accession Q53H54

**Reactivity** Rat, Pig, Dog, Bovine

Host Rabbit
Clonality Polyclonal
Calculated MW 50236
Physical State Liquid

Immunogen KLH conjugated synthetic peptide derived from human TRMT12

Epitope Specificity 231-330/448

**Isotype** IgG

**Purity** affinity purified by Protein A

Buffer0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.SIMILARITYBelongs to the RNA methyltransferase trmD family. TYW2 subfamily.Important NoteThis 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. TRM12 (tRNA methyltransferase 12 homolog (S. cerevisiae)), also known as TYW2

(tRNA-yW-synthesizing protein 2) or TRMT12, is a 448 amino acid protein that belongs to the RNA methyltransferase trmD family and TYW2 subfamily. TRM12 is the human homolog of a yeast gene that is essential for the synthesis of yW (wybutosine), a guanosine that stabilizes codon-anticodon associations near the anticodon of phenylalanine tRNA during ribosomal decoding. The gene encoding TRRM12 maps to human chromosome 8, which consists of nearly 146 million base pairs, encodes over 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar

disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism,

Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

### **Additional Information**

**Gene ID** 55039

Other Names tRNA wybutosine-synthesizing protein 2 homolog, tRNA-yW-synthesizing

protein 2, 2.5.1.114, tRNA(Phe) (4-demethylwyosine(37)-C(7)) aminocarboxypropyltransferase, TRMT12, TRM12, TYW2

**Dilution** WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-50

0,ELISA=1:5000-10000

Format 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**

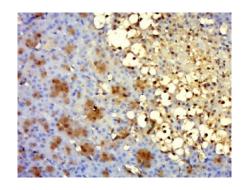
Name TRMT12

Synonyms TRM12, TYW2

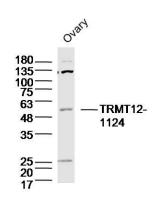
**Function** S-adenosyl-L-methionine-dependent transferase that acts as a component of

the wybutosine biosynthesis pathway. Wybutosine is a hyper modified guanosine with a tricyclic base found at the 3'-position adjacent to the anticodon of eukaryotic phenylalanine tRNA. Catalyzes the transfer of the alpha-amino-alpha-carboxypropyl (acp) group from S- adenosyl-L-methionine to the C-7 position of 4-demethylwyosine (imG-14) to produce wybutosine-86.

## **Images**



Paraformaldehyde-fixed, paraffin embedded (rat ovary); 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 (TRMT12) Polyclonal Antibody, Unconjugated (AP56576) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Sample: Ovary (Mouse) Lysate at 40 ug

Primary: Anti- TRMT12-1124 (AP56576) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at

1/20000 dilution

Predicted band size: 50 kD Observed band size: 50 kD

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