Data Sheet (Cat.No.TMAB-13824)

Anti-TRMT12 Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Mouse,Rat (predicted:Human,Dog,Pig,Cow,Horse)
Molecular Weight:	Theoretical: 50 kDa. Actual: 50 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	1. Paraformaldehyde-fixed, paraffin embedded (rat ovary); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (TRMT12) Polyclonal Antibody, Unconjugated (TMAB-13824) at 1:400 overnight at 4°C, followed by a conjugated secondary for 20 minutes and DAB staining. 2. Sample: Ovary (Mouse) Lysate at 40 µg Primary: Anti-TRMT12-1124 (TMAB-13824) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 50 kD Observed band size: 50 kD
Application:	WB,IHC-P,IHC-Fr,IF
Recommended	WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human TRMT12
Antigen Species:	Human
Gene ID:	55039
Uniprot ID:	Q53H54

Research Background

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.

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