

TYW3 Antibody

Catalog # ASC11335

Product Information

Application	WB, E
Primary Accession	Q6IPR3
Other Accession	Q6IPR3 , 42734381
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	29794
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TYW3 antibody can be used for detection of TYW3 by Western blot at 1 µg/mL.

Additional Information

Gene ID	127253
Other Names	tRNA wybutosine-synthesizing protein 3 homolog, tRNA-yW-synthesizing protein 3, 2.1.1.282, tRNA(Phe) 7-((3-amino-3-carboxypropyl)-4-demethylwyosine(37)-N(4))-methyltransferase, TYW3, C1orf171
Target/Specificity	TYW3; TYW3 antibody is predicted to not cross-react with other TYW protein family members. At least two isoforms of TYW3 are known to exist; this antibody will detect both isoforms.
Reconstitution & Storage	TYW3 antibody can be stored at 4 °C, stable for one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	TYW3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TYW3 (HGNC:24757)
Synonyms	C1orf171
Function	S-adenosyl-L-methionine-dependent methyltransferase involved in the biosynthesis of wybutosine, a hyper modified guanosine with a tricyclic base located at position 37 of eukaryotic phenylalanine tRNA (tRNA(Phe)) that contributes to maintenance of the translational reading frame. Catalyzes the methylation of 4-demethylwyosine, generating intermediates required for the formation of mature wybutosine.

Background

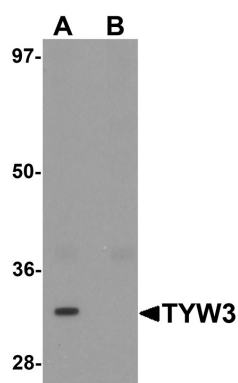
TYW3 Antibody: TYW3 is an enzyme that participates in the wybutosine-tRNA (Phe) biosynthesis pathway. Wybutosine (yW) is a hypermodified guanosine at the 3-prime position adjacent to the anticodon of phenylalanine tRNA that stabilizes codon-anticodon interactions during decoding on the ribosome. TYW3 is involved in a multistep enzymatic reaction that stabilizes codon-anticodon base-pairing during the ribosomal decoding process, thereby ensuring correct translation.

References

Noma A and Suzuki T. Ribonucleome analysis identified enzyme genes responsible for wybutosine synthesis. *Nucleic Acids Symp. Ser. (Oxf)* 2006; 65-6.

Noma A, Kirino Y, Ikeuchi Y, et al. Biosynthesis of wybutosine, a hyper-modified nucleoside in eukaryotic phenylalanine tRNA. *EMBO J.* 2006; 25:2142-54

Images



Western blot analysis of TYW3 in A549 cell lysate with TYW3 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.

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