

TYW1 Antibody
Catalog # ASC11333**Specification**

TYW1 Antibody - Product Information

Application	WB, IHC
Primary Accession	Q9NV66
Other Accession	NP_060734 , 50726981
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	TYW1 antibody can be used for detection of TYW1 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL.

TYW1 Antibody - Additional InformationGene ID **55253****Target/Specificity**

TYW1; TYW1 antibody is predicted to not cross-react with other TYW protein family members. At least three isoforms of TYW1 are known to exist; this antibody will only detect the two larger isoforms.

Reconstitution & Storage

TYW1 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

TYW1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TYW1 Antibody - Protein Information**Name** TYW1**Synonyms** RSAFD1**Function**

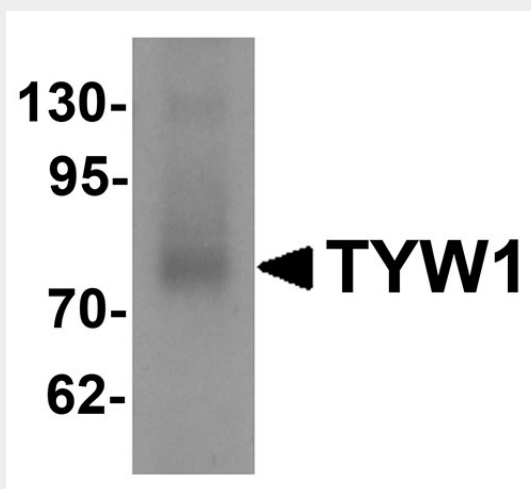
Probable component of the wybutosine biosynthesis pathway. Wybutosine is a hyper modified guanosine with a tricyclic base found at the 3'-position adjacent to the anticodon of eukaryotic phenylalanine tRNA. Catalyzes the condensation of N-methylguanine with 2 carbon atoms from pyruvate to form the tricyclic 4-demethylwyosine, an intermediate in wybutosine biosynthesis (By similarity).

TYW1 Antibody - Protocols

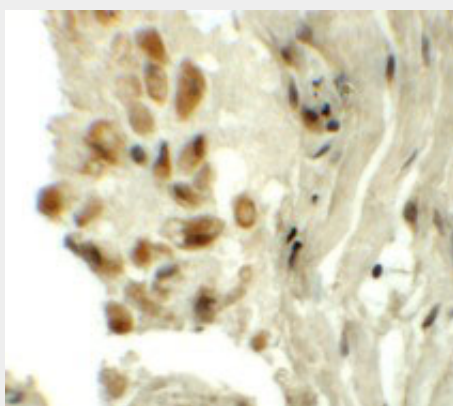
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TYW1 Antibody - Images



Western blot analysis of TYW1 in human lung tissue lysate with TYW1 antibody at 1 µg/mL.



Immunohistochemistry of TYW1 in human lung tissue with TYW1 antibody at 5 µg/mL.

TYW1 Antibody - Background

TYW1 Antibody: TYW1, also known as TYW1A, RSAFD1 or YPL207W, is a 732 amino acid protein containing one flavodoxin-like domain 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. TYW1 is involved in a multistep enzymatic reaction that stabilizes codon-anticodon base-pairing during the ribosomal decoding process, thereby ensuring correct translation. TYW1

binds to one 4Fe-4S cluster and is located on human chromosome 7. Defects in some of the genes on chromosome 7 have been linked to Osteogenesis imperfecta, Williams-Beuren syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome, suggesting that TYW1 may play a role in these conditions

TYW1 Antibody - 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

Hillier LW, Fulton RS, Fulton LA, et al. The DNA sequence of human chromosome 7. Nature 2003; 424:157-64.

Goto-Ito S, Ishii R, Ito T, et al. Structure of an archaeal TYW1, the enzyme catalyzing the second step of wye-base biosynthesis. Acta Crystallogr. D Biol. Crystallogr. 2007; 63:1059-68