

RPUSD4 Rabbit pAb

RPUSD4 Rabbit pAb

Catalog # AP57272

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q96CM3
Predicted	Rat, Pig, Dog, Human, Mouse, Rabbit, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42205
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RPUSD4
Epitope Specificity	231-330/377
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Additional Information

Gene ID	84881
Other Names	Pseudouridylate synthase RPUSD4, mitochondrial, 5.4.99.-, RNA pseudouridylate synthase domain-containing protein 4, RPUSD4 {ECO:0000303 PubMed:27667664, ECO:0000312 HGNC:HGNC:25898}
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500 0-10000
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	RPUSD4 {ECO:0000303 PubMed:27667664, ECO:0000312 HGNC:HGNC:25898}
Function	Catalyzes uridine to pseudouridine isomerization (pseudouridylation) of different mitochondrial RNA substrates (PubMed: 27974379 , PubMed: 28082677 , PubMed: 41136621). Acts on position 1397 in 16S mitochondrial ribosomal RNA (16S mt-rRNA) (PubMed: 27974379 , PubMed: 41136621). This modification is required for the assembly of 16S

mt-rRNA into a functional mitochondrial ribosome (PubMed:[27974379](#)). As a component of a functional protein-RNA module, consisting of RCC1L, NGRN, RPUSD3, RPUSD4, TRUB2, FASTKD2 and 16S mt-rRNA, controls 16S mt- rRNA abundance and is required for intra-mitochondrial translation (PubMed:[27667664](#)). Acts on position 39 in mitochondrial tRNA(Phe) (PubMed:[28082677](#)). Also catalyzes pseudouridylation of mRNAs in nucleus: acts as a regulator of pre-mRNA splicing by mediating pseudouridylation of pre-mRNAs at locations associated with alternatively spliced regions (PubMed:[35051350](#)). Pseudouridylation of pre-mRNAs near splice sites directly regulates mRNA splicing and mRNA 3'-end processing (PubMed:[35051350](#)).

Cellular Location

Mitochondrion matrix. Nucleus Cytoplasm. Note=Mainly localizes to mitochondrion (PubMed:23435261, PubMed:27974379, PubMed:28082677) Localizes to mitochondrial RNA granules, platforms for post- transcriptional RNA modification and ribosome assembly (PubMed:27974379, PubMed:28082677). Also found in nucleus and cytoplasm (PubMed:23435261).

Background

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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