

TRNT1 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP56580

Specification

TRNT1 Polyclonal Antibody - Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q96Q11
Reactivity	Rat, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	50128

TRNT1 Polyclonal Antibody - Additional Information

Gene ID 51095

Other Names

CCA tRNA nucleotidyltransferase 1, mitochondrial, 2.7.7.72, Mitochondrial tRNA nucleotidyl transferase, CCA-adding, mt CCA-adding enzyme, mt tRNA CCA-diphosphorylase, mt tRNA CCA-pyrophosphorylase, mt tRNA adenyltransferase, TRNT1

Dilution

IHC-P ~ N/A
IHC-F ~ N/A
IF ~ 1:50 ~ 200
ICC ~ N/A
E ~ N/A

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glycerol

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.

TRNT1 Polyclonal Antibody - Protein Information

Name TRNT1 {ECO:0000303|PubMed:25193871, ECO:0000312|HGNC:HGNC:17341}

Function

Nucleotidyltransferase that catalyzes the addition and repair of the essential 3'-terminal CCA sequence in tRNAs, which is necessary for the attachment of amino acids to the 3' terminus of tRNA molecules, using CTP and ATP as substrates (PubMed:[11504732](http://www.uniprot.org/citations/11504732), PubMed:[25193871](http://www.uniprot.org/citations/25193871), PubMed:[25640237](http://www.uniprot.org/citations/25640237), PubMed:[25652405](http://www.uniprot.org/citations/25652405), PubMed:[29454993](http://www.uniprot.org/citations/29454993)

[30959222](http://www.uniprot.org/citations/30959222), PubMed: [31011209](http://www.uniprot.org/citations/31011209), PubMed: [34023389](http://www.uniprot.org/citations/34023389)). tRNA 3'-terminal CCA addition is required both for tRNA processing and repair (PubMed: [22076379](http://www.uniprot.org/citations/22076379), PubMed: [25640237](http://www.uniprot.org/citations/25640237)). Promotes tRNA repair and recycling downstream of the ribosome-associated quality control (RQC) pathway by mediating addition of the tRNA 3'-terminal CCA following cleavage by ANKZF1 and repair by ELAC1 (PubMed: [31011209](http://www.uniprot.org/citations/31011209)). Also involved in tRNA surveillance by mediating tandem CCA addition to generate a CCACCA at the 3' terminus of unstable tRNAs and tRNA-like transcripts (PubMed: [22076379](http://www.uniprot.org/citations/22076379), PubMed: [25640237](http://www.uniprot.org/citations/25640237)). While stable tRNAs receive only 3'-terminal CCA, unstable tRNAs beginning with GG are marked with CCACCA and rapidly degraded (PubMed: [22076379](http://www.uniprot.org/citations/22076379), PubMed: [25640237](http://www.uniprot.org/citations/25640237)). The structural flexibility of RNA controls the choice between CCA versus CCACCA addition: following the first CCA addition cycle, nucleotide-binding to the active site triggers a clockwise screw motion, producing torque on the RNA (PubMed: [25640237](http://www.uniprot.org/citations/25640237)). This ejects stable RNAs, whereas unstable RNAs are refolded while bound to the enzyme and subjected to a second CCA catalytic cycle (PubMed: [25640237](http://www.uniprot.org/citations/25640237)).

Cellular Location

Mitochondrion. Cytoplasm. Nucleus

TRNT1 Polyclonal 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](#)

TRNT1 Polyclonal Antibody - Images