

TRNT1 antibody - N-terminal region
Rabbit Polyclonal Antibody
Catalog # AI11801**Specification****TRNT1 antibody - N-terminal region - Product Information**

Application	WB, IHC
Primary Accession	O96Q11
Other Accession	NM_016000 , NP_057084
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Horse, Bovine, Dog
Predicted Host	Human, Mouse, Rat, Pig, Chicken, Bovine
Clonality	Rabbit
Calculated MW	Polyclonal 45kDa KDa

TRNT1 antibody - N-terminal region - Additional Information**Gene ID** 51095**Alias Symbol** CCA1, MtCCA, CGI-47**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 adenylyltransferase, TRNT1

Format

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage

Add 100 ul of distilled water. Final anti-TRNT1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions

TRNT1 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

TRNT1 antibody - N-terminal region - 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, PubMed:25193871, PubMed:25640237, PubMed:25640237, PubMed:25640237).

[25652405](http://www.uniprot.org/citations/25652405), PubMed: [29454993](http://www.uniprot.org/citations/29454993), PubMed: [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

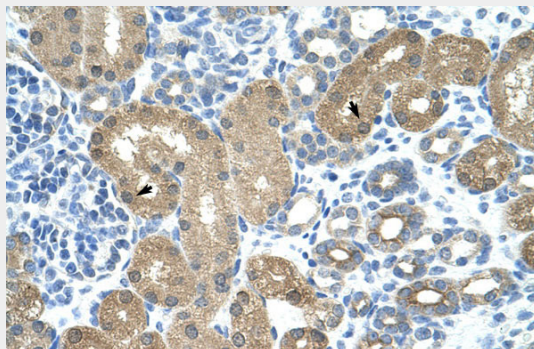
Mitochondrion. Cytoplasm. Nucleus

TRNT1 antibody - N-terminal region - Protocols

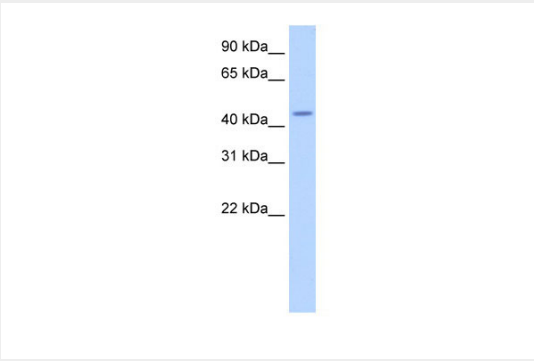
Provided below are standard protocols that you may find useful for product applications.

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

TRNT1 antibody - N-terminal region - Images



Rabbit Anti-TRNT1 Antibody
Paraffin Embedded Tissue: Human Kidney
Cellular Data: Epithelial cells of renal tubule
Antibody Concentration: 4.0-8.0 µg/ml
Magnification: 400X



90 kDa__
65 kDa__
40 kDa__
31 kDa__
22 kDa__

WB Suggested Anti-TRNT1 Antibody Titration: 2.5µg/ml
ELISA Titer: 1:62500
Positive Control: Human brain

TRNT1 antibody - N-terminal region - References

Augustin, M.A., (2003) J. Mol. Biol. 328 (5), 985-994
Reconstitution and Storage: For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.