

Specification

Application	WB, IHC
Primary Accession	Q96Q11
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

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	

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

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.

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

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

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))

[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

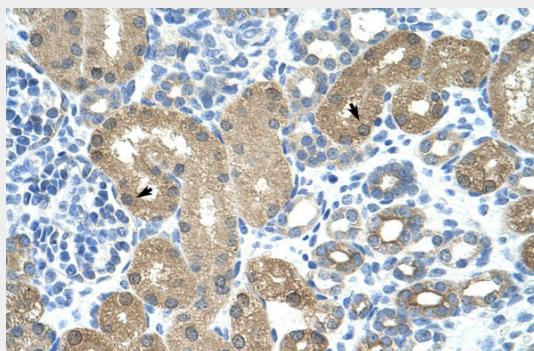
Mitochondrion. Cytoplasm. Nucleus

TRNT1 antibody - N-terminal region - Protocols

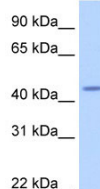
Provided below are standard protocols that you may find useful for product applications.

- [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



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.