

PUS10 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19991a

Specification

PUS10 Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	Q3MIT2
Other Accession	NP_653310.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	60244
Antigen Region	52-78

PUS10 Antibody (N-term) - Additional Information

Gene ID 150962

Other Names

Putative tRNA pseudouridine synthase Pus10, 5499-, Coiled-coil domain-containing protein 139, tRNA pseudouridine 55 synthase, Psi55 synthase, tRNA pseudouridylate synthase, tRNA-uridine isomerase, PUS10, CCDC139, DOBI

Target/Specificity

This PUS10 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 52-78 amino acids from the N-terminal region of human PUS10.

Dilution

WB~~1:1000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PUS10 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PUS10 Antibody (N-term) - Protein Information

Name PUS10 ([HGNC:26505](#))

Function Protein with different functions depending on its subcellular location: involved in miRNA processing in the nucleus and acts as a tRNA pseudouridylate synthase in the cytoplasm (PubMed:[31819270](#), PubMed:[33023933](#)). In the cytoplasm, acts as a pseudouridylate synthase by catalyzing synthesis of pseudouridine(54) and pseudouridine(55) from uracil-54 and uracil-55, respectively, in the psi GC loop of a subset of tRNAs (PubMed:[30530625](#), PubMed:[31819270](#), PubMed:[33023933](#)). tRNA pseudouridylate synthase activity is enhanced by the presence of 1-methyladenosine at position 53-61 of tRNAs (PubMed:[30530625](#)). Does not show tRNA pseudouridylate synthase activity in the nucleus (PubMed:[33023933](#)). In the nucleus, promotes primary microRNAs (pri- miRNAs) processing independently of its RNA pseudouridylate synthase activity (PubMed:[31819270](#)). Binds pri-miRNAs (PubMed:[31819270](#)). Modulator of TRAIL/TNFSF10-induced cell death via activation of procaspase-8 and BID cleavage (PubMed:[14527409](#), PubMed:[19712588](#)). Required for the progression of the apoptotic signal through intrinsic mitochondrial cell death (PubMed:[19712588](#)).

Cellular Location

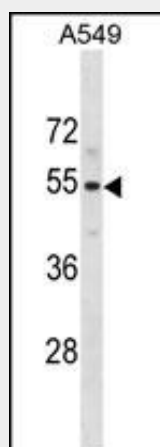
Nucleus. Cytoplasm Mitochondrion. Note=Localizes mainly in the nucleus (Probable) (PubMed:[31819270](#)). tRNA pseudouridylate synthase activity is restricted to the cytoplasm (PubMed:[31819270](#)). Translocates from nucleus to mitochondria during TRAIL-induced apoptosis (PubMed:[28981101](#)).

PUS10 Antibody (N-term) - 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](#)

PUS10 Antibody (N-term) - Images



PUS10 Antibody (N-term) (Cat. #AP19991a) western blot analysis in A549 cell line lysates (35ug/lane). This demonstrates the PUS10 antibody detected the PUS10 protein (arrow).

PUS10 Antibody (N-term) - Background

Pseudouridination, the isomerization of uridine to pseudouridine, is the most common posttranscriptional nucleotide modification found in RNA and is essential for biologic functions such as spliceosome biogenesis. Pseudouridylate synthases, such as PUS10, catalyze pseudouridination of structural RNAs, including transfer, ribosomal, and splicing RNAs. These enzymes also act as RNA chaperones, facilitating the correct folding and assembly of tRNAs (McCleverty et al., 2007 [PubMed 17900615]).[supplied by OMIM].

PUS10 Antibody (N-term) - References

Dick, D.M., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B (6), 1179-1188 (2010) :
McGovern, D.P., et al. Nat. Genet. 42(4):332-337(2010)
Dubois, P.C., et al. Nat. Genet. 42(4):295-302(2010)
Hosgood, H.D. III, et al. Occup Environ Med 66(12):848-853(2009)
Park, S.Y., et al. BMB Rep 42(8):511-515(2009)