

**PUS1 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP12835b**

**Specification**

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**PUS1 Antibody (C-term) - Product Information**

|                   |                                                              |
|-------------------|--------------------------------------------------------------|
| Application       | IHC-P, WB,E                                                  |
| Primary Accession | <a href="#">O9Y606</a>                                       |
| Other Accession   | <a href="#">NP_001002019.1</a> , <a href="#">NP_079491.2</a> |
| Reactivity        | Human                                                        |
| Host              | Rabbit                                                       |
| Clonality         | Polyclonal                                                   |
| Isotype           | Rabbit IgG                                                   |
| Calculated MW     | 47470                                                        |
| Antigen Region    | 322-350                                                      |

**PUS1 Antibody (C-term) - Additional Information**

**Gene ID** 80324

**Other Names**

tRNA pseudouridine synthase A, mitochondrial, tRNA pseudouridine(38-40) synthase, tRNA pseudouridylate synthase I, tRNA-uridine isomerase I, PUS1

**Target/Specificity**

This PUS1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 322-350 amino acids from the C-terminal region of human PUS1.

**Dilution**

IHC-P~~1:10~50

WB~~1:1000

E~~Use at an assay dependent concentration.

**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**

PUS1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**PUS1 Antibody (C-term) - Protein Information**

**Name** PUS1 {ECO:0000303|PubMed:17056637, ECO:0000312|HGNC:HGNC:15508}

**Function** Pseudouridylate synthase that catalyzes pseudouridylation of tRNAs and mRNAs (PubMed:[15772074](#), PubMed:[24722331](#)). Acts on positions 27/28 in the anticodon stem and also positions 34 and 36 in the anticodon of an intron containing tRNA (PubMed:[24722331](#)). Also catalyzes pseudouridylation of mRNAs: mediates pseudouridylation of mRNAs with the consensus sequence 5'-UGUAG-3' (PubMed:[31477916](#), PubMed:[35051350](#)). 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](#)). Involved in regulation of nuclear receptor activity through pseudouridylation of SRA1 mRNA (PubMed:[24722331](#)).

#### Cellular Location

[Isoform 1]: Mitochondrion

#### Tissue Location

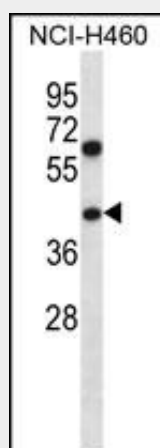
Widely expressed (PubMed:15108122). High levels of expression found in brain and skeletal muscle (PubMed:15108122)

### PUS1 Antibody (C-term) - Protocols

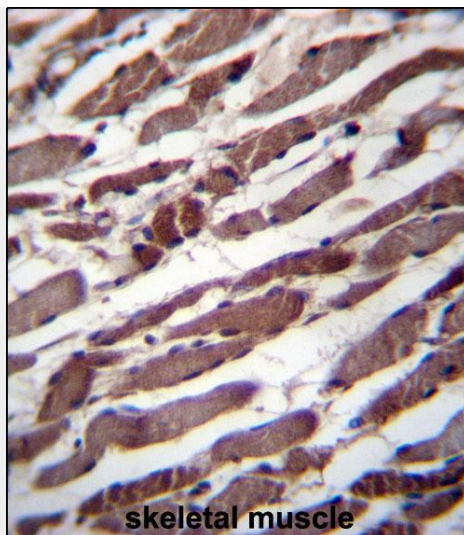
Provided below are standard protocols that you may find useful for product applications.

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

### PUS1 Antibody (C-term) - Images



PUS1 Antibody (C-term) (Cat. #AP12835b) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the PUS1 antibody detected the PUS1 protein (arrow).



PUS1 Antibody (C-term) (Cat. #AP12835b) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of PUS1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

#### **PUS1 Antibody (C-term) - Background**

This gene encodes a pseudouridine synthase that converts uridine to pseudouridine once it has been incorporated into an RNA molecule. The encoded enzyme may play an essential role in tRNA function and in stabilizing the secondary and tertiary structure of many RNAs. A mutation in this gene has been linked to mitochondrial myopathy and sideroblastic anemia. Alternate splicing results in multiple transcript variants.

#### **PUS1 Antibody (C-term) - References**

Bergmann, A.K., et al. *Pediatr Blood Cancer* 54(2):273-278(2010)  
Sibert, B.S., et al. *RNA* 14(9):1895-1906(2008)  
Rikova, K., et al. *Cell* 131(6):1190-1203(2007)  
Sugiyama, N., et al. *Mol. Cell Proteomics* 6(6):1103-1109(2007)  
Fernandez-Vizarra, E., et al. *J. Med. Genet.* 44(3):173-180(2007)