

**PUS1 Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP12835b****Specification**

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**PUS1 Antibody (C-term) Blocking peptide - Product Information**Primary Accession [Q9Y606](#)**PUS1 Antibody (C-term) Blocking peptide - Additional Information**

Gene ID 80324

**Other Names**

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

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**PUS1 Antibody (C-term) Blocking peptide - Protein Information****Name** PUS1 {ECO:0000303|PubMed:17056637, ECO:0000312|HGNC:HGNC:15508}**Function**

Pseudouridylylate synthase that catalyzes pseudouridylation of tRNAs and mRNAs (PubMed: [15772074](http://www.uniprot.org/citations/15772074), PubMed: [24722331](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/24722331)). Also catalyzes pseudouridylation of mRNAs: mediates pseudouridylation of mRNAs with the consensus sequence 5'-UGUAG-3' (PubMed: [31477916](http://www.uniprot.org/citations/31477916), PubMed: [35051350](http://www.uniprot.org/citations/35051350)). Acts as a regulator of pre-mRNA splicing by mediating pseudouridylation of pre-mRNAs at locations associated with alternatively spliced regions (PubMed: [35051350](http://www.uniprot.org/citations/35051350)). Pseudouridylation of pre-mRNAs near splice sites directly regulates mRNA splicing and mRNA 3'-end processing (PubMed: [35051350](http://www.uniprot.org/citations/35051350)). Involved in regulation of nuclear receptor activity through pseudouridylation of SRA1 mRNA (PubMed: [24722331](http://www.uniprot.org/citations/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) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

**PUS1 Antibody (C-term) Blocking peptide - Images****PUS1 Antibody (C-term) Blocking peptide - 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) Blocking peptide - 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)