

PITRM1 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12390c**Specification****PITRM1 Antibody (Center) - Product Information**

Application	WB,E
Primary Accession	Q5JRX3
Other Accession	NP_055704.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	117413
Antigen Region	490-518

PITRM1 Antibody (Center) - Additional Information**Gene ID** 10531**Other Names**

Presequence protease, mitochondrial, hPreP, 3424-, Pitriysin metalloproteinase 1, Metalloprotease 1, hMP1, PITRM1, KIAA1104, MP1

Target/Specificity

This PITRM1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 490-518 amino acids from the Central region of human PITRM1.

Dilution

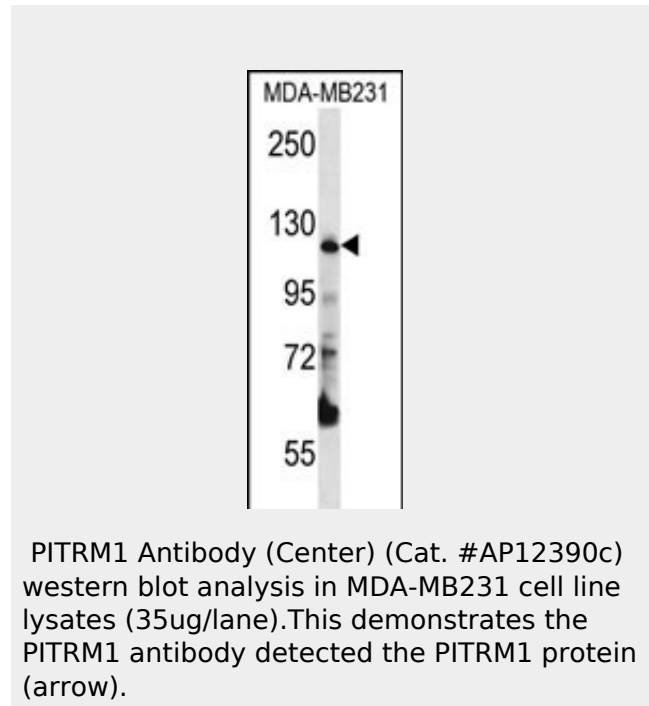
WB~~1:1000

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**PITRM1 Antibody (Center) - Background**

ATP-independent protease that degrades mitochondrial transit peptides after their cleavage. Also degrades other unstructured peptides. Specific for peptides in the range of 10 to 65 residues. Able to degrade amyloid beta A4 (APP) protein when it accumulates in mitochondrion, suggesting a link with Alzheimer disease. Shows a preference for cleavage after small polar residues and before basic residues, but without any positional preference.

PITRM1 Antibody (Center) - References

- Yoshida, T., et al. *Int. J. Mol. Med.* 25(4):649-656(2010)
Pinho, C.M., et al. *Neurosci. Lett.* 469(2):204-208(2010)
Oguri, M., et al. *Am. J. Hypertens.* 23(1):70-77(2010)
Yoshida, T., et al. *Int. J. Mol. Med.* 24(4):539-547(2009)
Chow, K.M., et al. *Biochemistry*

PITRM1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

48(13):2868-2877(2009)

PITRM1 Antibody (Center) - Protein Information

Name PITRM1 ([HGNC:17663](#))

Function

Metalloendopeptidase of the mitochondrial matrix that functions in peptide cleavage and degradation rather than in protein processing (PubMed:[10360838](http://www.uniprot.org/citations/10360838) target="_blank">10360838, PubMed:[16849325](http://www.uniprot.org/citations/16849325) target="_blank">16849325, PubMed:[19196155](http://www.uniprot.org/citations/19196155) target="_blank">19196155, PubMed:[24931469](http://www.uniprot.org/citations/24931469) target="_blank">24931469). Has an ATP-independent activity (PubMed:[16849325](http://www.uniprot.org/citations/16849325) target="_blank">16849325). Specifically cleaves peptides in the range of 5 to 65 residues (PubMed:[19196155](http://www.uniprot.org/citations/19196155) target="_blank">19196155). Shows a preference for cleavage after small polar residues and before basic residues, but without any positional preference (PubMed:[10360838](http://www.uniprot.org/citations/10360838) target="_blank">10360838, PubMed:[19196155](http://www.uniprot.org/citations/19196155) target="_blank">19196155, PubMed:[24931469](http://www.uniprot.org/citations/24931469) target="_blank">24931469). Degrades the transit peptides of mitochondrial proteins after their cleavage (PubMed:[19196155](http://www.uniprot.org/citations/19196155) target="_blank">19196155). Also degrades other unstructured peptides (PubMed:[19196155](http://www.uniprot.org/citations/19196155) target="_blank">19196155). It is also able to degrade amyloid-beta protein 40, one of the peptides produced by APP processing, when it accumulates in mitochondrion (PubMed:[19196155](http://www.uniprot.org/citations/19196155) target="_blank">19196155).

w.uniprot.org/citations/16849325" target="_blank">16849325, PubMed:24931469). It is a highly efficient protease, at least toward amyloid-beta protein 40 (PubMed:24931469). Cleaves that peptide at a specific position and is probably not processive, releasing digested peptides intermediates that can be further cleaved subsequently (PubMed:24931469).

Cellular Location

Mitochondrion matrix

Tissue Location

Widely expressed. Expressed at higher level in muscle and heart compared to brain, pancreas, liver, lung and placenta

PITRM1 Antibody (Center) - 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](#)