

**MINPP1 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP14723b****Specification**

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**MINPP1 Antibody (C-term) - Product Information**

Application	WB, FC,E
Primary Accession	<a href="#">O9UNW1</a>
Other Accession	<a href="#">NP_004888.2</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	370-398

**MINPP1 Antibody (C-term) - Additional Information****Gene ID** 9562**Other Names**

Multiple inositol polyphosphate phosphatase 1, 3-bisphosphoglycerate 3-phosphatase, 3-BPG phosphatase, Inositol (1, 5)-tetrakisphosphate 3-phosphatase, Ins(1, 5)P(4) 3-phosphatase, MINPP1, MIPP

**Target/Specificity**

This MINPP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 370-398 amino acids from the C-terminal region of human MINPP1.

**Dilution**

WB~~1:1000  
FC~~1:10~50

**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**

MINPP1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**MINPP1 Antibody (C-term) - Protein Information****Name** MINPP1 ([HGNC:7102](#))

**Function** Multiple inositol polyphosphate phosphatase that hydrolyzes 1D-myo-inositol 1,3,4,5,6-pentakisphosphate (InsP5[2OH]) and 1D-myo- inositol hexakisphosphate (InsP6) to a range of less phosphorylated inositol phosphates. This regulates the availability of these various small molecule second messengers and metal chelators which control many aspects of cell physiology (PubMed:[36589890](#), PubMed:[33257696](#)). Has a weak in vitro activity towards 1D-myo-inositol 1,4,5-trisphosphate which is unlikely to be physiologically relevant (PubMed:[36589890](#)). By regulating intracellular inositol polyphosphates pools, which act as metal chelators, it may control the availability of intracellular calcium and iron, which are important for proper neuronal development and homeostasis (PubMed:[33257696](#)). May have a dual substrate specificity, and function as a 2,3-bisphosphoglycerate 3-phosphatase hydrolyzing 2,3-bisphosphoglycerate to 2-phosphoglycerate. 2,3- bisphosphoglycerate (BPG) is formed as part of the Rapoport-Luebering glycolytic bypass and is a regulator of systemic oxygen homeostasis as the major allosteric effector of hemoglobin (PubMed:[18413611](#)).

#### Cellular Location

Endoplasmic reticulum lumen {ECO:0000250|UniProtKB:O35217}. Secreted Cell membrane {ECO:0000250|UniProtKB:Q9Z2L6}. Note=Also associated with the plasma membrane in erythrocytes. {ECO:0000250|UniProtKB:Q9Z2L6}

#### Tissue Location

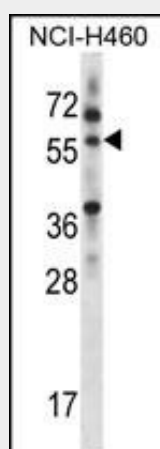
Widely expressed with highest levels in kidney, liver, cerebellum and placenta.

### MINPP1 Antibody (C-term) - Protocols

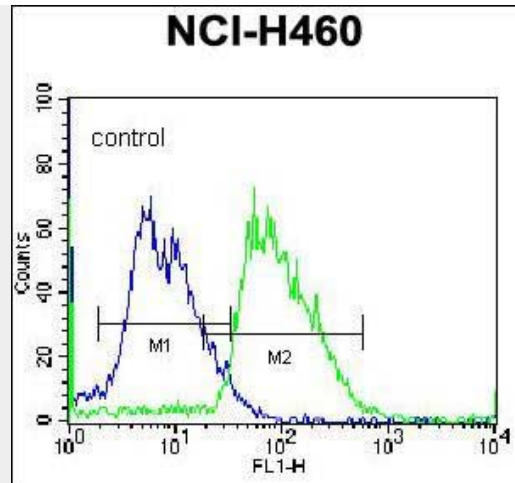
Provided below are standard protocols that you may find useful for product applications.

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

### MINPP1 Antibody (C-term) - Images



MINPP1 Antibody (C-term) (Cat. #AP14723b) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the MINPP1 antibody detected the MINPP1 protein (arrow).



MINPP1 Antibody (C-term) (Cat. #AP14723b) flow cytometric analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.

#### **MINPP1 Antibody (C-term) - Background**

This gene encodes multiple inositol polyphosphate phosphatase; an enzyme that removes 3-phosphate from inositol phosphate substrates. It is the only enzyme known to hydrolyze inositol pentakisphosphate and inositol hexakisphosphate. This enzyme also converts 2,3 bisphosphoglycerate (2,3-BPG) to 2-phosphoglycerate; an activity formerly thought to be exclusive to 2,3-BPG synthase/2-phosphatase (BPGM) in the Rapoport-Luebering shunt of the glycolytic pathway.

#### **MINPP1 Antibody (C-term) - References**

Newman, A.B., et al. J. Gerontol. A Biol. Sci. Med. Sci. 65(5):478-487(2010)  
Cho, J., et al. Proc. Natl. Acad. Sci. U.S.A. 105(16):5998-6003(2008)  
Lamesch, P., et al. Genomics 89(3):307-315(2007)  
Grupe, A., et al. Am. J. Hum. Genet. 78(1):78-88(2006)  
Liu, T., et al. J. Proteome Res. 4(6):2070-2080(2005)