

MINPP1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP14723b**Specification**

MINPP1 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [O9UNW1](#)**MINPP1 Antibody (C-term) Blocking Peptide - 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

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.

MINPP1 Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

MINPP1 Antibody (C-term) Blocking Peptide - Images**MINPP1 Antibody (C-term) Blocking Peptide - Background**

This gene encodes multiple inositol polyphosphatase; an enzyme that removes 3-phosphate from inositolphosphate 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) Blocking Peptide - 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)