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MINPP1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14723b

Specification

MINPP1 Antibody (C-term) - Product Information

Application	**FC, WB,E**
Primary Accession	Q9UNW1
Other Accession	NP_004888.2
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
FC~~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
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:33257696, PubMed:36589890). 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}

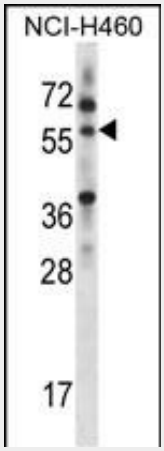
Tissue Location
Widely expressed with highest levels in kidney, liver, cerebellum and placenta.

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 Cytomety
- 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).

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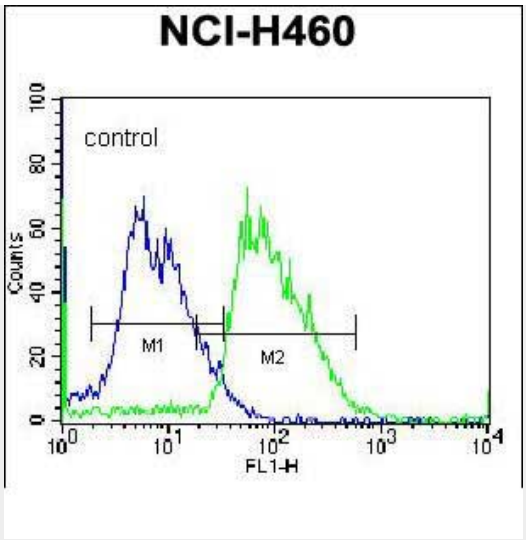

MINPP1 Antibody (C-term) (Cat. #AP14723b) flow cytometric analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.

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 hydrolzye 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)
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