

Anti-MINPP1 Antibody

Catalog # AP60768

Product Information

Application	WB, IHC
Primary Accession	Q9UNW1
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	55051

Additional Information

Gene ID	9562
Other Names	MIPP; Multiple inositol polyphosphate phosphatase 1; 2, 3-bisphosphoglycerate 3-phosphatase; 2, 3-BPG phosphatase; Inositol (1, 3, 4, 5)-tetrakisphosphate 3-phosphatase; Ins(1, 3, 4, 5)P(4) 3-phosphatase
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human MINPP1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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](#)).

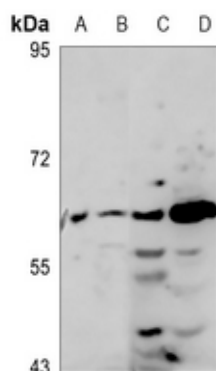
Cellular Location

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}

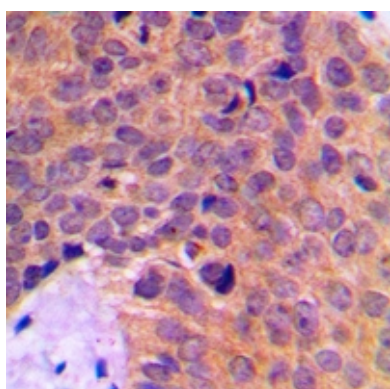
Tissue Location

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

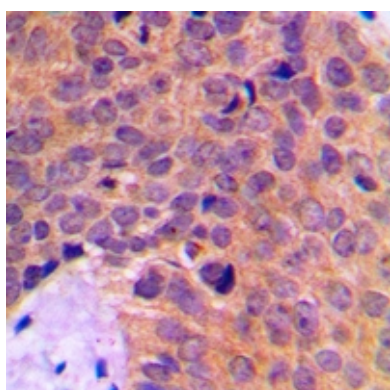
Images



Western blot analysis of MINPP1 expression in HEK293T (A), A549 (B), rat liver (C), rat heart (D) whole cell lysates. (Predicted band size: 55 kD; Observed band size: 65 kD)



Immunohistochemical analysis of MINPP1 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



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