



Rabbit Anti-PCPTP1 antibody

SL11924R

Product Name:	PCPTP1
Chinese Name:	蛋白酪氨酸磷酸酶受体PCPTP1抗体
Alias:	Ch-1PTPase; Ch1 PTPase; DKFZp781C1038; EC PTP; ECPTP; NC PTPCOM1; NC-PTPCOM1; Protein tyrosine phosphatase Cr1PTPase precursor; Protein tyrosine phosphatase NC PTPCOM1; Protein tyrosine phosphatase PCPTP1; Protein tyrosine phosphatase receptor type R; Protein-tyrosine phosphatase PCPTP1; PTP SL; PTPBR7; PTPRQ; PTPRR; PTPRR_HUMAN; PTPSL; R-PTP-R; Receptor type tyrosine protein phosphatase R; Receptor-type tyrosine-protein phosphatase R.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	72kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human PCPTP1:165-270/657<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The protein tyrosine phosphatase (PTP) family of proteins are signaling molecules that

regulate processes such as cell growth, cell differentiation, oncogenic transformation and the mitotic cycle. PCPTP1, also known as PTPRR (Receptor-type tyrosine-protein phosphatase R), ECPTP, PTPBR7 or PTPRQ, is a 657 amino acid protein that functions to sequester inactive mitogen-activated protein kinases (MAPKs) to the cytoplasm. Expressed primarily in the brain with weaker expression in other parts of the body, PCPTP1 is a receptor-like molecule that is able to dephosphorylate MAPKs, thereby rendering them inactive. Three isoforms of PCPTP1 exist and are designated alpha, beta and gamma. The alpha form is localized to the cell membrane, while the beta and gamma forms are localized to the perinuclear areas within the cytoplasm.

Function:

Sequesters mitogen-activated protein kinases (MAPKs) such as MAPK1, MAPK3 and MAPK14 in the cytoplasm in an inactive form. The MAPKs bind to a dephosphorylated kinase interacting motif, phosphorylation of which by the protein kinase A complex releases the MAPKs for activation and translocation into the nucleus.

Subunit:

Interacts with MAPKs

Subcellular Location:

Cell membrane and Cytoplasm > perinuclear region. Locates to the perinuclear areas within the cytoplasm.

Tissue Specificity:

Expressed in brain, placenta, small intestine, stomach, uterus and weakly in the prostate. Isoform alpha has been observed only in the brain. Isoform gamma is expressed in brain, placenta and uterus. Isoform delta is expressed in brain, kidney, placenta, prostate, small intestine and uterus.

Similarity:

Belongs to the protein-tyrosine phosphatase family. Receptor class 7 subfamily. Contains 1 tyrosine-protein phosphatase domain.

SWISS:

Q15256

Gene ID:

5801

Database links:

[Entrez Gene: 536337](#)Cow

[Entrez Gene: 5801](#)Human

[Entrez Gene: 19279](#)Mouse

[Entrez Gene: 94202](#)Rat

[Entrez Gene: 100125100](#)Xenopus tropicalis

[Omid: 602853](#)Human

[SwissProt: Q15256](#)Human

[SwissProt: Q62132](#)Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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