

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; tyrosine phosphatase Cr1PTPase precursor; Protein tyrosine phosphatase NC PTPCOM1; Protein tyrosine phosphatase PCPTP1; Protein tyrosine phosphatase receptor type R; Protein-tyrosine phosphatase SL; PTPBR7; PTPRQ; PTPRR; PTPRR_HUMAN; PTPSL; R-PTP-R; Receptor type tyrosine phosphatase R; Receptor-type tyrosine-protein phosphatase R.

Research Area

Tumour Cell biology Cyclin Cell differentiation

Immunogen Species

Rabbit

Clonality

Polyclonal

React Species

(predicted: Human, Mouse, Rat, Dog, Pig, Cow, Sheep,)

Applications

WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight

72kDa

Cellular localization

cytoplasmic The cell membrane

Form

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

Buffer Solution

1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage

Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

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

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applications.

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The protein tyrosine phosphatase (PTP) family of proteins are signaling molecules that regulate 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 molecule that is able to dephosphorylate MAPKs, thereby rendering them inactive. Three isoforms exist and are designated alpha, beta and gamma. The alpha form is localized to the cell membrane 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 in the nucleus.

Subunit:

Interacts with MAPKs

Subcellular Location:

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

Product Detail

Tissue Specificity:

Expressed in brain, placenta, small intestine, stomach, uterus and weakly in the prostate. Isoform alpha is 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



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[Entrez Gene: 94202](#) Rat

[Entrez Gene: 100125100](#) Xenopus tropicalis

[Omin: 602853](#) Human

[SwissProt: Q15256](#) Human

[SwissProt: Q62132](#) Mouse