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PTPRQ Rabbit Polyclonal Antibody

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Catalog # AP93563

Product Information

Application	WB, IHC
Primary Accession	Q9UMZ3
Reactivity	Rat, Human, Mouse
Host	Polyclonal, Rabbit,IgG
Clonality	Polyclonal
Calculated MW	260924

Additional Information

Other Names	Phosphatidylinositol phosphatase PTPRQ, 3.1.3.67, 3.1.3.86, 3.1.3.95, Receptor-type tyrosine-protein phosphatase Q, PTP-RQ, R-PTP-Q, PTPRQ
Dilution	WB~~1:1000 IHC~~1:100~500
Storage Conditions	-20℃

Protein Information

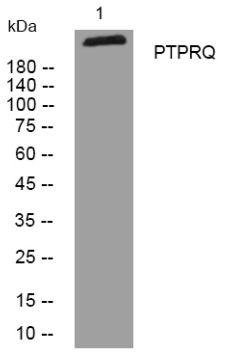
Name	PTPRQ
Function	Dephosphorylates phosphatidylinositol phosphates, such as phosphatidylinositol 3,4,5-trisphosphate (PIP3) and phosphatidylinositol 3,5-diphosphates, with preference for PIP3 (PubMed:23897475). Phosphate can be hydrolyzed from the D3 and D5 positions in the inositol ring (PubMed:23897475). Has low tyrosine- protein phosphatase activity in vitro; however, the relevance of such activity in vivo is unclear (By similarity). Plays an important role in adipogenesis of mesenchymal stem cells (MSCs). Regulates the phosphorylation state of AKT1 by regulating the levels of PIP3 in MSCs and preadipocyte cells (PubMed:19351528). Required for hair bundle maturation, a process that enables hair cells to detect and transmit sound and balance signals effectively, therefore affecting auditory function (PubMed:20472657, PubMed:29309402). May act by regulating the level of phosphatidylinositol 4,5-bisphosphate (PIP2) level in the basal region of hair bundles (By similarity).
Cellular Location	Cell projection, stereocilium {ECO:0000250|UniProtKB:P0C5E4}. Apical cell membrane; Single-pass type I membrane protein. Basal cell membrane; Single-pass type I membrane protein. Note=Detected at the stereocilium base and at the apical cell membrane in mature hair cells (By similarity). Forms ring-like structures in the stereocilium taper region (By similarity). Detected at the basal cell membrane in fetal kidney podocytes (PubMed:12837292) {ECO:0000250|UniProtKB:P0C5E4, ECO:0000269|PubMed:12837292}

Tissue Location	In developing kidney, it localizes to the basal membrane of podocytes, beginning when podocyte progenitors can first be identified in the embryonic kidney (at protein level). Expressed in lung and kidney.

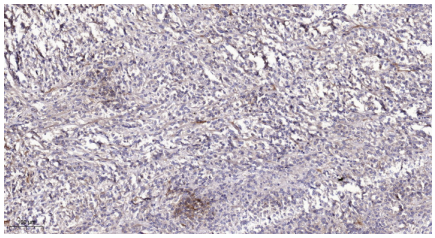
Background

This locus encodes a member of the type III receptor-like protein-tyrosine phosphatase family. The encoded protein catalyzes the dephosphorylation of phosphotyrosine and phosphatidylinositol and plays roles in cellular proliferation and differentiation. Mutations at this locus have been linked to autosomal recessive deafness. [provided by RefSeq, Mar 2014],

Images



Western blot analysis of lysates from KB cells, primary antibody was diluted at 1:1000, 4°over night



Immunohistochemical analysis of paraffin-embedded human Colon cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).