10320 Camino Santa Fe, Suite G
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PTP4A2 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1865a

Specification

PTP4A2 Antibody - Product Information

Application	**E, WB**
Primary Accession	Q12974
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG2b**
Calculated MW	**19.1kDa KDa**

Description
The protein encoded by this gene belongs to a small class of the protein tyrosine phosphatase (PTP) family. PTPs are cell signaling molecules that play regulatory roles in a variety of cellular processes. PTPs in this class contain a protein tyrosine phosphatase catalytic domain and a characteristic C-terminal prenylation motif. This PTP has been shown to primarily associate with plasmic and endosomal membrane through its C-terminal prenylation. This PTP was found to interact with the beta-subunit of Rab geranylgeranyltransferase II (beta GGT II), and thus may function as a regulator of GGT II activity. Overexpression of this gene in mammalian cells conferred a transformed phenotype, which suggested its role in tumorigenesis. Alternatively spliced transcript variants have been described. Related pseudogenes exist on chromosomes 11, 12 and 17.

Immunogen
Purified recombinant fragment of human PTP4A2 (AA: 58-162) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

PTP4A2 Antibody - Additional Information

Gene ID 8073

Other Names
Protein tyrosine phosphatase type IVA 2, 3.1.3.48, HU-PP-1, OV-1, PTP(CAAXII), Protein-tyrosine phosphatase 4a2, Protein-tyrosine phosphatase of regenerating liver 2, PRL-2, PTP4A2, PRL2, PTPCAAX2

Dilution
E~~1/10000
WB~~1/500 - 1/2000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

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PTP4A2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PTP4A2 Antibody - Protein Information

Name PTP4A2

Synonyms PRL2, PTPCAAX2

Function
Protein tyrosine phosphatase which stimulates progression from G1 into S phase during mitosis. Promotes tumors. Inhibits geranylgeranyl transferase type II activity by blocking the association between RABGGTA and RABGGTB.

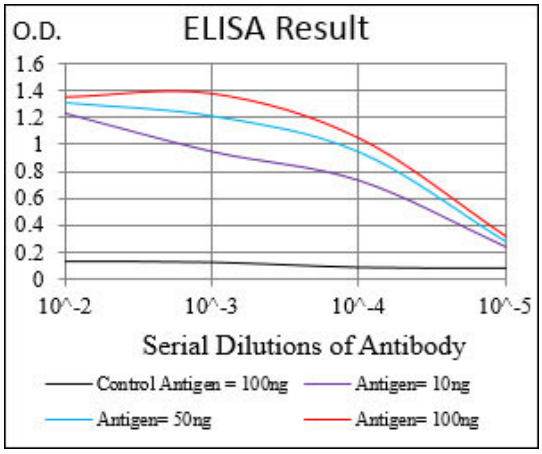
Cellular Location
Cell membrane. Early endosome. Cytoplasm.

Tissue Location
Ubiquitously expressed, with highest levels in skeletal muscle, heart and thymus. Overexpressed in prostate tumor tissue.

PTP4A2 Antibody - 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



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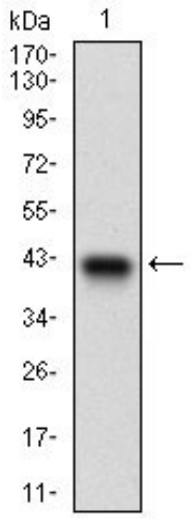


Figure 1: Western blot analysis using PTP4A2 mAb against human PTP4A2 recombinant protein. (Expected MW is 37.5 kDa)

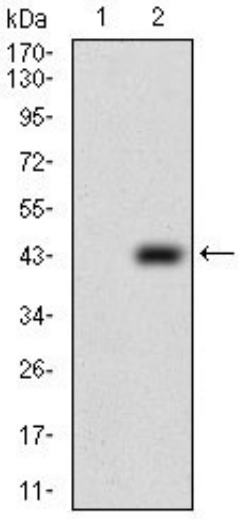


Figure 2: Western blot analysis using PTP4A2 mAb against HEK293 (1) and PTP4A2 (AA: 58-162)-hIgGFc transfected HEK293 (2) cell lysate.

PTP4A2 Antibody - Background

This gene encodes a member of the insulin-like growth factor (IGF)-binding protein (IGFBP) family. IGFBPs bind IGFs with high affinity, and regulate IGF availability in body fluids and tissues and modulate IGF binding to its receptors. This protein binds IGF-I and IGF-II with relatively low affinity, and belongs to a subfamily of low-affinity IGFBPs. It also stimulates prostacyclin production and cell adhesion. Alternatively spliced transcript variants encoding different isoforms have been described for this gene, and one variant has been associated with retinal arterial macroaneurysm (PMID:21835307). ;

PTP4A2 Antibody - References

1. Cancer Res. 2010 Nov 1;70(21):8959-67. 2. Blood Cells Mol Dis. 2010 Apr 15;44(4):209-14.