

Goat Anti-PTP4A1 / PRL-1 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1881a**Specification**

Goat Anti-PTP4A1 / PRL-1 Antibody - Product Information

Application	WB
Primary Accession	Q93096
Other Accession	NP_003454 , 7803
Reactivity	Human
Predicted	Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	19815

Goat Anti-PTP4A1 / PRL-1 Antibody - Additional Information**Gene ID** 7803**Other Names**

Protein tyrosine phosphatase type IVA 1, 3.1.3.48, PTP(CAAXI), Protein-tyrosine phosphatase 4a1, Protein-tyrosine phosphatase of regenerating liver 1, PRL-1, PTP4A1, PRL1, PTPCAAX1

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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

Goat Anti-PTP4A1 / PRL-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-PTP4A1 / PRL-1 Antibody - Protein Information**Name** PTP4A1**Synonyms** PRL1, PTPCAAX1**Function**

Protein tyrosine phosphatase which stimulates progression from G1 into S phase during mitosis. May play a role in the development and maintenance of differentiating epithelial tissues. Enhances cell proliferation, cell motility and invasive activity, and promotes cancer metastasis.

Cellular Location

Cell membrane; Lipid-anchor. Early endosome. Endoplasmic reticulum. Cytoplasm Cytoplasm, cytoskeleton, spindle. Nucleus {ECO:0000250|UniProtKB:Q78EG7}. Note=And mitotic spindle

Tissue Location

Expressed in bone marrow, lymph nodes, T lymphocytes, spleen, thymus and tonsil.
Overexpressed in tumor cell lines.

Goat Anti-PTP4A1 / PRL-1 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 Cytometry](#)
- [Cell Culture](#)

Goat Anti-PTP4A1 / PRL-1 Antibody - Images

AF1881a (1 µg/ml) staining of A549 lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-PTP4A1 / PRL-1 Antibody - Background

The protein encoded by this gene belongs to a small class of prenylated protein tyrosine phosphatases (PTPs), which contains a PTP domain and a characteristic C-terminal prenylation motif. PTPs are cell signaling molecules that play regulatory roles in a variety of cellular processes. This tyrosine phosphatase is a nuclear protein, but may primarily associate with plasma membrane. The surface membrane association of this protein depends on its C-terminal prenylation. Overexpression of this gene in mammalian cells conferred a transformed phenotype, which implicated its role in the tumorigenesis. Studies in rat suggested that this gene may be an immediate-early gene in mitogen-stimulated cells.

Goat Anti-PTP4A1 / PRL-1 Antibody - References

Evaluation of candidate stromal epithelial cross-talk genes identifies association between risk of serous ovarian cancer and TERT, a cancer susceptibility hot-spot. Johnatty SE, et al. PLoS Genet,

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Enzyme activity of phosphatase of regenerating liver is controlled by the redox environment and its C-terminal residues. Skinner AL, et al. Biochemistry, 2009 May 26. PMID 19341304.

PRL1 promotes cell migration and invasion by increasing MMP2 and MMP9 expression through Src and ERK1/2 pathways. Luo Y, et al. Biochemistry, 2009 Mar 3. PMID 19199380.

New p53 target, phosphatase of regenerating liver 1 (PRL-1) downregulates p53. Min SH, et al. Oncogene, 2009 Jan 29. PMID 18997816.

Expression of phosphatase of regenerating liver 1 and 3 mRNA in esophageal squamous cell carcinoma. Liu YQ, et al. Arch Pathol Lab Med, 2008 Aug. PMID 18684031.