

Goat Anti-PTP4A1 / PRL-1 Antibody

Peptide-affinity purified goat antibody Catalog # AF1881a

Specification

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

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Concentration Isotype Calculated MW

WB, E <u>Q93096</u> <u>NP_003454</u>, <u>7803</u> Human Mouse, Rat, Dog Goat Polyclonal 100ug/200ul IgG 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

Dilution WB~~1:1000 E~~N/A

Format

0.5 mg lgG/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 Cytomety
- <u>Cell Culture</u>

Goat Anti-PTP4A1 / PRL-1 Antibody - Images



AF1881a (1 μ g/ml) staining of A549 lysate (35 μ g 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, 2010 Jul 8. PMID 20628624.

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.