

Goat Anti-PALS / MPP5 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1780a**Specification**

Goat Anti-PALS / MPP5 Antibody - Product Information

Application	WB
Primary Accession	Q8N3R9
Other Accession	NP_071919 , 64398
Reactivity	Human
Predicted	Pig, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	77294

Goat Anti-PALS / MPP5 Antibody - Additional Information**Gene ID** 64398**Other Names**

MAGUK p55 subfamily member 5, MPP5

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-PALS / MPP5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-PALS / MPP5 Antibody - Protein Information**Name** PALS1 {ECO:0000303|PubMed:21479189, ECO:0000312|HGNC:HGNC:18669}**Function**

Plays a role in tight junction biogenesis and in the establishment of cell polarity in epithelial cells (PubMed:16678097, PubMed:25385611). Also involved in adherens junction biogenesis by ensuring correct localization of the exocyst complex protein EXOC4/SEC8 which allows trafficking of adherens junction structural component CDH1 to the cell surface (By similarity). Plays a role through its interaction with CDH5 in vascular

lumen formation and endothelial membrane polarity (PubMed:27466317). Required during embryonic and postnatal retinal development (By similarity). Required for the maintenance of cerebellar progenitor cells in an undifferentiated proliferative state, preventing premature differentiation, and is required for cerebellar histogenesis, fissure formation, cerebellar layer organization and cortical development (By similarity). Plays a role in neuronal progenitor cell survival, potentially via promotion of mTOR signaling (By similarity). Plays a role in the radial and longitudinal extension of the myelin sheath in Schwann cells (By similarity). May modulate SC6A1/GAT1-mediated GABA uptake by stabilizing the transporter (By similarity). Plays a role in the T-cell receptor-mediated activation of NF-kappa-B (PubMed:21479189). Required for localization of EZR to the apical membrane of parietal cells and may play a role in the dynamic remodeling of the apical cytoskeleton (By similarity). Required for the normal polarized localization of the vesicular marker STX4 (By similarity). Required for the correct trafficking of the myelin proteins PMP22 and MAG (By similarity). Involved in promoting phosphorylation and cytoplasmic retention of transcriptional coactivators YAP1 and WWTR1/TAZ which leads to suppression of TGFBI-dependent transcription of target genes such as CCN2/CTGF, SERPINE1/PAI1, SNAI1/SNAIL1 and SMAD7 (By similarity).

Cellular Location

Golgi apparatus. Cell membrane; Peripheral membrane protein. Endomembrane system; Peripheral membrane protein. Cell junction, tight junction. Cell junction, adherens junction. Cell projection, axon {ECO:0000250|UniProtKB:Q9JLB2}. Perikaryon {ECO:0000250|UniProtKB:Q9JLB2}. Apical cell membrane. Note=Localized to the tight junctions of epithelial cells (By similarity). Localized to the Golgi apparatus in T lymphocytes (PubMed:21479189). Localized to a subset of intracellular vesicles (By similarity). Localized to the Purkinje cell body and axon (By similarity). Localized to intercellular junctions in vascular endothelial cells (PubMed:27466317). Localized to Schmidt-Lanterman incisures, the adaxonal domain, and the inner part of paranodal loops in myelinating Schwann cells of the sciatic nerve (By similarity) Localized to apical membrane domains of the outer limiting membrane (OLM) junctions in the retina (By similarity). Colocalizes with CRB1 at the OLM, apical to the adherens junction (PubMed:15914641). Colocalizes with MPP1 in the retina at the OLM (PubMed:17584769). Colocalizes with MPP3 to the subapical region of adherens junctions in the retina OLM (PubMed:16519681). {ECO:0000250|UniProtKB:Q9JLB2, ECO:0000269|PubMed:15914641, ECO:0000269|PubMed:16519681, ECO:0000269|PubMed:17584769, ECO:0000269|PubMed:21479189, ECO:0000269|PubMed:27466317}

Tissue Location

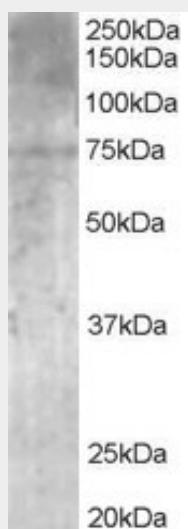
Expressed at the outer limiting membrane in the retina (at protein level) (PubMed:15914641, PubMed:15558731, PubMed:16519681, PubMed:17584769). Expressed in T lymphocytes (at protein level) (PubMed:21479189). Expressed in the kidney (at protein level) (PubMed:17584769).

Goat Anti-PALS / MPP5 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-PALS / MPP5 Antibody - Images



AF1780a (1 µg/ml) staining of Human Brain lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-PALS / MPP5 Antibody - Background

Members of the peripheral membrane-associated guanylate kinase (MAGUK) family function in tumor suppression and receptor clustering by forming multiprotein complexes containing distinct sets of transmembrane, cytoskeletal, and cytoplasmic signaling proteins. All MAGUKs contain a PDZ-SH3-GUK core and are divided into 4 subfamilies, DLG-like (see DLG1; MIM 601014), ZO1-like (see TJP1; MIM 601009), p55-like (see MPP1; MIM 305360), and LIN2-like (see CASK; MIM 300172), based on their size and the presence of additional domains (Tseng et al., 2001 [PubMed 11311936]). MPP5 is a member of the p55-like MAGUK subfamily.

Goat Anti-PALS / MPP5 Antibody - References

Pals1 is a major regulator of the epithelial-like polarization and the extension of the myelin sheath in peripheral nerves. Ozcelik M, et al. J Neurosci, 2010 Mar 17. PMID 20237282.
Defining the human deubiquitinating enzyme interaction landscape. Sowa ME, et al. Cell, 2009 Jul 23. PMID 19615732.
Toward a confocal subcellular atlas of the human proteome. Barbe L, et al. Mol Cell Proteomics, 2008 Mar. PMID 18029348.
FERM protein EPB41L5 is a novel member of the mammalian CRB-MPP5 polarity complex. Gosens I, et al. Exp Cell Res, 2007 Nov 15. PMID 17920587.
MPP1 links the Usher protein network and the Crumbs protein complex in the retina. Gosens I, et al. Hum Mol Genet, 2007 Aug 15. PMID 17584769.