

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat PALS1/MPP5 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human PALS1/MPP5 Ala392-Ser509 Accession # Q8N3R9
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

MPP5 (Membrane Palmitoylated Protein 5; also PALS1/Proteins Associated with Lin7 #1) is a 70-80 kDa member of MAGUK (Membrane-Associated Guanylate Kinase) family of proteins. It is ubiquitously expressed, and plays a key role in the creation of cell polarity and adhesion. Although not its only function, MPP5 is essential for tight junction integrity. Crumbs proteins (Crb-1 and -3) are apically-oriented, integral membrane proteins. These transmembrane proteins are known to bind to cytosolic MPP5, which, in turn, links to PATJ, which, in turn, binds to either cytosolic ZO-3, or to 4-transmembrane laterally-embedded claudin-1. Subsequent binding of ZO-3 with actin unite the cytoskeleton with the cell membrane. Human MPP5 is 675 amino acids (aa) in length. It contains a utilized phosphorylation site at Ser25, two consecutive L27 domains (aa 120-177 and 179-235) that bind PATJ, one PDZ domain (aa 256-336) that binds crumb proteins, an SH3 region (aa 345-417), and a C-terminal guanylate kinase-like domain (aa 479-660). MPP5 forms both homodimers and heterodimers with MPP4. There is one splice variant that utilizes an alternative start site at Met35. Over aa 392-509, human and mouse MPP5 are identical in amino acid sequence. Overall, human and mouse MPP5 share 97% aa sequence identity.

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