# Human/Mouse/Rat PALS1/MPP5 Alexa Fluor® 532-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7979X
100 µg

## DESCRIPTION

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| **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** | *E. coli*-derived recombinant human PALS1/MPP5<br>Ala392-Ser509<br>Accession # Q8N3R9 |
| **Conjugate** | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm |
| **Formulation** | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.*

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

## PREPARATION AND STORAGE

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| **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.

## PRODUCT SPECIFIC NOTICES

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