

**DESCRIPTION**

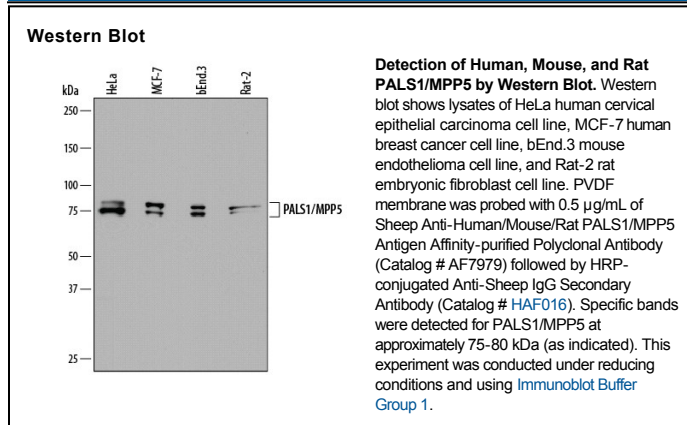
<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human, mouse, and rat PALS1/MPP5 in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human PALS1/MPP5 Ala392-Ser509 Accession # Q8N3R9
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.5 µg/mL	See Below

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**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.