

DESCRIPTION

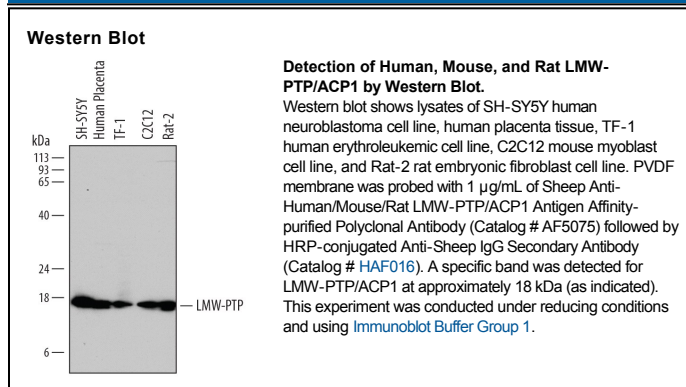
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat LMW-PTP/ACP1 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human LMW-PTP/ACP1 Ala2-His158 Accession # P24666
Formulation	Lyophilized from a 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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

LMW-PTP (Low Molecular Weight Protein Tyrosine Phosphatase; also Red cell acid phosphatase 1/ACP1, HCPTP, and HAAP/Adipocyte acid phosphatase) is a 17-18 kDa member of the LMWPTP family, PTP superfamily of enzymes. It is widely expressed, being found in cells diverse as B and T cells, endothelial cells and vascular smooth muscle cells. LMW-PTP dephosphorylates multiple substrates, often in a cell-dependent manner. Among the substrates for LMW-PTP include PDGRβ, EphA2 and β-catenin. PMW-PTP is found intracellularly, generally associated with two cytoplasmic pools, one in the cytosol and the other accompanying the cytoskeleton. Human LMW-PTP is 158 amino acids (aa) in length. The catalytic region spans aa 9-154, and there are two acetylation sites at Ala2 and Lys156. Phosphorylation on Tyr132 and Tyr133 occurs on cytoskeleton-associated LMW-PTP, and has the effect of increasing its phosphatase activity. There are three alternative splice variants reported for LMW-PTP. One shows a 34 aa substitution for aa 41-74, a second shows a deletion of aa 41-74, while a third contains a 35 aa substitution for aa 78-158. The last two isoforms may function as negative regulators of LMW-PTP activity. Full-length LMW-PTP shares 86% aa sequence identity with mouse LMW-PTP.