Human/Mouse/Rat LMW-PTP/ACP1 Antibody

Monoclonal Mouse IgG_{2B} Clone # 475417

Catalog Number: MAB5075

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat LMW-PTP/ACP1 in Western blots.
Source	Monoclonal Mouse IgG_{2B} Clone # 475417
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-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 either lyophilized or as a 0.2 μm filtered solution in PBS.

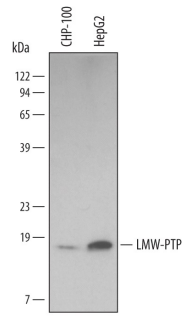
APPLICATIONS

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

Western Blot



Detection of Human LMW-PTP/ACP1 by Western Blot. Western blot shows lysates of CHP-100 human neuroblastoma cell line and HepG2 human hepatocellular carcinoma cell line. PVDF Membrane was probed with 1 µg/mL of Mouse Anti-Human/Mouse/Rat LMW-PTP/ACP1 Monoclonal Antibody (Catalog # MAB5075) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for LMW-PTP/ACP1 at approximately 18 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
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.** ● 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

Low molecular weight protein tyrosine phosphatase (LMW-PTP), also known as Acid Phosphatase 1 (ACP1), is an 18 kDa cytosolic phosphatase that is unrelated to other tyrosine phosphatases, such as PTP1B. Tyrosine phosphorylation of LMW-PTP increases its activity 20-fold and affects its ability to dephosphorylate targets such as the PDGF receptor. Cancer cells overexpressing LMW-PTP have a higher proliferative rate and generate tumors that are larger than untransfected controls. Colon adenocarcinomas induced by dimethylhydrazine also have elevated levels of LMW-PTP, suggesting that this phosphatase may be a marker for oncogenic transformation. Human LMW-PTP shares 86% and 87% amino acid sequence identity with mouse and rat LMW-PTP, respectively.

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