

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	<i>E. coli</i> -derived recombinant human LMW-PTP/ACP1 Ala2-His158 Accession # P24666
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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

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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