

DESCRIPTION

Specificity	Detects Oxidized PTP Active Site. Will react with any oxidized phosphatase containing the consensus sequence. Detects oxidized but not unoxidized DEP-1, PTP1B, TC-PTP, and SHP-2. Other phosphatases have not been tested.
Source	Monoclonal Mouse IgG ₁ Clone # 335636
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	KLH-coupled perfomic acid oxidized synthetic peptide VHCSAG
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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

Oxidation of the essential cysteine in the active site of protein tyrosine phosphatases (PTPs) by exogenous or intracellular oxidants such as hydrogen peroxide is believed to play an important role in regulating the activity of these enzymes. The initial oxidation to a sulfinic acid (-SOH) is reversible, but the oxidation often progresses to an irreversible sulfonic acid (-SO₃H) that can be detected by modification-specific antibodies. The active sites of PTPs contain the consensus amino acid sequence (V/I)HCSXG, a sequence essential for catalytic activity.

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