

## DESCRIPTION

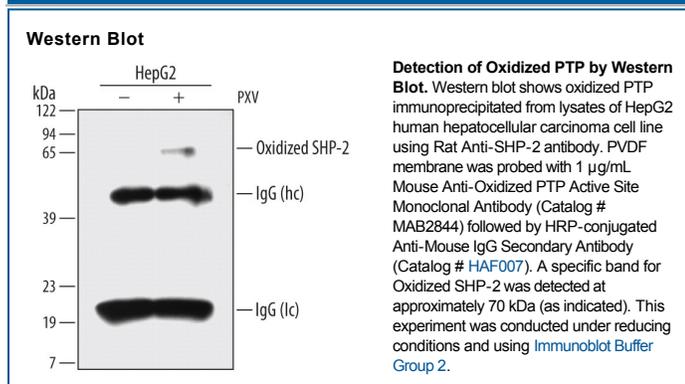
<b>Specificity</b>	Detects Oxidized PTP Active Site. Will react with any oxidized phosphatase containing the consensus sequence. Detects oxidized but not unoxidized DEP-1, PTP1B, TC-PTP, and SHP-2. Other phosphatases have not been tested.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 335636
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	KLH-coupled perfluorinated acid oxidized synthetic peptide VHCSAG
<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.

	Recommended Concentration	Sample
<b>Western Blot</b>	1 µg/mL	See Below

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<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>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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

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 sulfenic acid (-SOH) is reversible, but the oxidation often progresses to an irreversible sulfonic acid (-SO<sub>3</sub>H) 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.