

DESCRIPTION

Species Reactivity	Human
Specificity	Detects the endogenous cleaved extracellular domain of human PTP σ /PTPRS in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human LAR, PTPR β , PTPR δ , PTPR μ , or PTPR κ is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human PTP σ /PTPRS Glu30-Gly1260 Accession # NP_570924
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m 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 μ g/mL	See Below
Immunocytochemistry	5-15 μ g/mL	See Below

DATA

<p>Western Blot</p>	<p>Detection of Human PTPσ/PTPRS by Western Blot. Western blot shows lysates of SH-SY5Y human neuroblastoma cell line, CHP-100 human neuroblastoma cell line, and A431 human epithelial carcinoma cell line. PVDF membrane was probed with 1 μg/mL Goat Anti-Human PTPσ/PTPRS Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3430) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). For additional reference, recombinant human PTPRμ, PTPRκ, LAR, PTPRδ, and PTPRβ (40 ng/lane) were included. A specific band for PTPσ/PTPRS was detected at approximately 140 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p>	<p>PTPσ/PTPRS in A431 Cell Line. PTPσ/PTPRS was detected in immersion fixed A431 human epithelial carcinoma cell line using Goat Anti-Human PTPσ/PTPRS Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3430) at 10 μg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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. <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

Protein Tyrosine Phosphatase Receptor-type sigma (PTPR σ), also known as PTP σ , is an integral membrane protein with a non-glycosylated molecular weight of 214 kilodaltons. The extracellular domain, which was used as immunogen, is cleaved near the cell membrane by an endoprotease to generate a glycosylated 140 kDa protein. Significant levels of this protein are found in the brain and in endocrine tissues such as the pituitary gland and pancreas. Knockout mice deficient in PTPR σ have severe neurological deficits and most die shortly after birth.