

DESCRIPTION

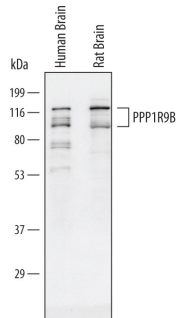
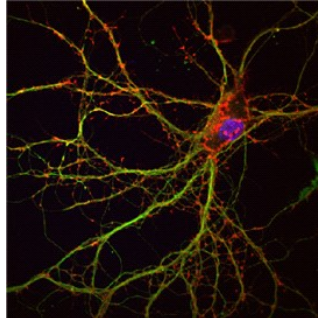
Species Reactivity	Human/Rat
Specificity	Detects human and rat PPP1R9B in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human PPP1R9B Lys289-Asp412 Accession # Q96SB3
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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
Immunocytochemistry	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human and Rat PPP1R9B by Western Blot. Western blot shows lysates of human brain tissue and rat brain tissue. PVDF Membrane was probed with 1 µg/mL of Human/Rat PPP1R9B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6465) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). Specific bands were detected for PPP1R9B at approximately 90-120 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p>  <p>PPP1R9B in Rat Neurons. PPP1R9B was detected in immersion fixed rat hippocampal neurons (E18) using Sheep Anti-Human/Rat PPP1R9B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6465) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to synapses. Cells were co-stained using Neuron-specific beta-III Tubulin Monoclonal Antibody (Catalog # MAB1195) and the NorthernLights™ 493-conjugated Anti-Mouse IgG Secondary Antibody (green; Catalog # NL009). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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

PPP1R9B (Protein phosphatase 1 regulatory subunit 9B; also spinophilin and neurabin-II) is a widely expressed intracellular protein that is found in both cytoplasm and nucleus. Although its predicted MW is 89 kDa, it runs anomalously at 120-140 kDa in SDS-Page. PPP1R9B is associated with actin polymerization, particularly in cells such as neurons and NK cells. In NK cells, it orchestrates actin organization around the immunological synapse, allowing for targeted release of cytotoxic granules. Human PPP1R9B is 815 amino acids (aa) in length. It contains one actin-binding region (aa 1-154), a PP1 binding domain (aa 415-492), a PZD domain (aa 493-583) and a coiled-coil region (aa 647-815). PPP1R9B is reported to form homotrimers and homotetramers. There is one isoform variant that shows an Ala insertion after both Ala158 and Ala165, coupled to a premature truncation after Arg576. Over aa 291-414, human PPP1R9B shares 91% aa identity with mouse PPP1R9B.