Human/Rat LRP-4 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF5948

DESCRIPTION

Species Reactivity	Human/Rat
Specificity	Detects human and rat LRP-4 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) LRP-1, rhLRP-1B, rhLRP-5, rhLRP-6, and rhLDL R is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human LRP-4 Gly18-Ser344 Accession # O75096
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.

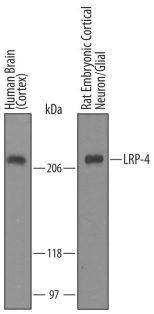
APPLICATIONS

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
Immunohistochemistry	5-15 µg/mL	See Below

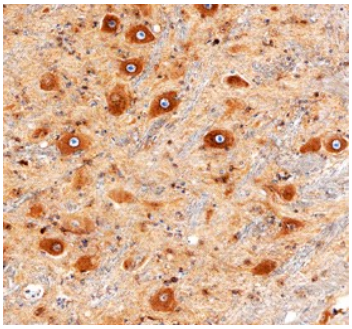
DATA

Western Blot



Detection of Human and Rat LRP-4 by Western Blot. Western blot shows lysates of human brain (cortex) tissue and rat cortical embryonic neuron/glial cells. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human/Rat LRP-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5948) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for LRP-4 at approximately 220 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



LRP-4 in Human Brainstem. LRP-4 was detected in immersion fixed paraffin-embedded sections of human brainstem using Sheep Anti-Human/Rat LRP-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5948) at 3 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal cell bodies and processes. This application has not been tested in rat samples. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

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.** ● 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

LRP-4 (Low density lipoprotein-related protein #4; also MEGF7 and LRP13) is a 220-270 kDa glycoprotein, member of the LDLR family of proteins. It is expressed on neurons, oocytes, spermatogonia and skeletal muscle cells, and binds multiple ligands, including WISE, apoE, MuSK and neuronal Agrin. It serves to negatively regulate Wnt signaling during development, and to cluster AChRs at neuromuscular junctions. Mature human LRP-4 is an 1885 amino acid (aa) type I transmembrane glycoprotein. It contains a 1705 aa extracellular domain (ECD) (aa 21-1725) plus a 159 aa cytoplasmic region (aa 1747-1905). In the ECD, there are eight LDLR class A repeats (aa 26-350), two EGF-like repeats (aa 354-434) and 20 LDLR class B repeats that contain an intervening EGF-like domain (aa 480-1610). Over aa 18-344, human LRP-4 shares 88% aa identity with mouse LRP-4.

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