Human Phospho-LRP-6 (S1490) Antibody

Antigen Affinity-purified Polyclonal Rabbit IgG
Catalog Number: AF6649

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LRP-6 when phosphorylated at S1490 in Western blots.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Phosphopeptide containing the human LRP-6 S1490 site.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS and Sodium Azide with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

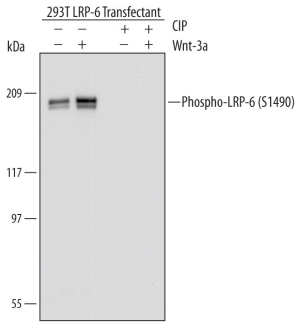
APPLICATIONS

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

DATA

Western Blot



Detection of Human Phospho-LRP-6 (S1490) by Western Blot. Western blot shows lysates of 293T human embryonic kidney cell line transfected with human LRP-6 untreated (-) or treated (+) with 100 ng/mL Recombinant Human Wnt-3a (High Purity) (Catalog # 5036-WNP) for 15 minutes. PVDF Membrane was probed with 1 µg/mL of Rabbit Anti-Human Phospho-LRP-6 (S1490) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6649) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Phospho-LRP-6 (S1490) at approximately 200 kDa (as indicated). The phospho-specificity of this antibody was supported by decreased labeling following treatment with 300 U/mL CIP for 1 hour. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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.** ● 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

LRP6 (Low-density lipoprotein receptor-related protein 6) is a 200-210 kDa member of the LDLR family of proteins. It is widely expressed, and serves as a coreceptor for both Wnt and parathyroid hormone. In the Wnt system, LRP6 associates with select Fzd multipass receptors; in the PTH system, LRP6 complexes with PTHR1. Mature human LRP6 is a 1594 amino acid (aa) type I transmembrane glycoprotein. It contains a 1351 aa extracellular region (aa 20-1370) plus a 220 aa cytoplasmic domain (aa 1394-1613). The cytoplasmic domain contains two palmitoylation sites, one ubiquitination residue, and multiple phosphorylation motifs. Ser1490 is a key residue that impacts multiple activities. It undergoes both constitutive and receptor activation-induced phosphorylation. At least three enzymes likely act at this site, including PKA (associated with PTHR1), GSK-3 (associated with Fzd) and Cyclin Y/PFTK1 (associated with G2/M of the cell cycle). In general, Ser1490 phosphorylation results in β-catenin stabilization, followed by either gene transcription or β-catenin binding to centrosomes.

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