

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.
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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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