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LRP6 Antibody (C-term T1546) Blocking Peptide

Synthetic peptide
Catalog # BP6158a

Specification

LRP6 Antibody (C-term T1546) Blocking Peptide - Product Information

Primary Accession O75581

LRP6 Antibody (C-term T1546) Blocking Peptide - Additional Information

Gene ID 4040

Other Names
Low-density lipoprotein receptor-related protein 6, LRP-6, LRP6

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6158a was selected from the C-term region of human LRP6 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

LRP6 Antibody (C-term T1546) Blocking Peptide - Protein Information

Name LRP6

Function

LRP6 Antibody (C-term T1546) Blocking Peptide - Background

LRP6 is essential for the Wnt/beta catenin signaling pathway, probably by acting as a coreceptor together with Frizzled for Wnt. It is a specific, high-affinity receptor for DKK1 and DKK2, but not DKK3. The interaction with DKK1 blocks LRP6-mediated Wnt/beta catenin signaling via LRP6 removal via Kremen proteins-mediated endocytosis.

LRP6 Antibody (C-term T1546) Blocking Peptide - References

Liu, G., et al., Mol. Cell. Biol. 23(16):5825-5835 (2003).Tamai, K., et al., Nature 407(6803):530-535 (2000).Brown, S.D., et al., Biochem. Biophys. Res. Commun. 248(3):879-888 (1998).

Component of the Wnt-Fzd-LRP5-LRP6 complex that triggers beta-catenin signaling through inducing aggregation of receptor-ligand complexes into ribosome-sized signalsomes. Cell-surface coreceptor of Wnt/beta-catenin signaling, which plays a pivotal role in bone formation. The Wnt-induced Fzd/LRP6 coreceptor complex recruits DVL1 polymers to the plasma membrane which, in turn, recruits the AXIN1/GSK3B-complex to the cell surface promoting the formation of signalsomes and inhibiting AXIN1/GSK3-mediated phosphorylation and destruction of beta-catenin. Required for posterior patterning of the epiblast during gastrulation (By similarity).

Cellular Location
Cell membrane; Single-pass type I membrane protein. Endoplasmic reticulum. Membrane raft. Note=On Wnt signaling, undergoes a cycle of caveolin- or clathrin-mediated endocytosis and plasma membrane location. Released from the endoplasmic reticulum on palmitoylation Mono-ubiquitination retains it in the endoplasmic reticulum in the absence of palmitoylation. On Wnt signaling, phosphorylated, aggregates and colocalizes with AXIN1 and GSK3B at the plasma membrane in LRP6- signalsomes. Chaperoned to the plasma membrane by MESD (By similarity)

Tissue Location
Widely coexpressed with LRP5 during embryogenesis and in adult tissues

LRP6 Antibody (C-term T1546) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides