10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

LRP-5/6 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10546

Specification

LRP-5/6 Antibody - Product Information

Application	**WB**
Primary Accession	O75197
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**179145**

LRP-5/6 Antibody - Additional Information

Gene ID 4041

Application & Usage: **Western blotting (0.5-4 µg/ml). However, the optimal concentrations should be determined individually. Jurkat cell lysate can also be detected. Reactivity to other species has not been tested.**

Other Names
LRP-5 , LRP -6

Target/Specificity
LRP-5/6

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5 mg/ml) affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA and 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
LRP-5/6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

LRP-5/6 Antibody - Protein Information

Name LRP5 {ECO:0000303|PubMed:24706814, ECO:0000312|HGNC:HGNC:6697}

Function
Acts as a coreceptor with members of the frizzled family of seven-transmembrane spanning receptors to transduce signal by Wnt proteins (PubMed:11336703, PubMed:11448771, PubMed:15778503, PubMed:11719191, PubMed:15908424, PubMed:16252235). Activates the canonical Wnt signaling pathway that controls cell fate determination and self-renewal during embryonic development and adult tissue regeneration (PubMed:11336703, PubMed:11719191). In particular, may play an important role in the development of the posterior patterning of the epiblast during gastrulation (By similarity). During bone development, regulates osteoblast proliferation and differentiation thus determining bone mass (PubMed:11719191). Mechanistically, the formation of the signaling complex between Wnt ligand, frizzled receptor and LRP5 coreceptor promotes the recruitment of AXIN1 to LRP5, stabilizing beta-catenin/CTNNB1 and activating TCF/LEF-mediated transcriptional programs (PubMed:11336703, PubMed:25920554, PubMed:24706814, PubMed:14731402). Acts as a coreceptor for non-Wnt proteins, such as norrin/NDP. Binding of norrin/NDP to frizzled 4/FZD4-LRP5 receptor complex triggers beta-catenin/CTNNB1-dependent signaling known to be required for retinal vascular development (PubMed:27228167, PubMed:16252235). Plays a role in controlling postnatal vascular regression in retina via macrophage-induced endothelial cell apoptosis (By similarity).

Cellular Location
Membrane {ECO:0000250|UniProtKB:Q91VN0}; Single- pass type I membrane protein {ECO:0000250|UniProtKB:Q91VN0} Endoplasmic reticulum. Note=Chaperoned to the plasma membrane by MESD. {ECO:0000250|UniProtKB:Q91VN0}

Tissue Location
Widely expressed, with the highest level of expression in the liver and in aorta.

LRP-5/6 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

- Flow Cytomety
- Cell Culture

LRP-5/6 Antibody - Images

LRP-5/6 Antibody - Background

LDL-related proteins LRP-5 and LRP-6. are members of the LDL receptor superfamily, which were found to be involved in the canonical Wnt signaling pathway. Mammalian LRP-6 was shown to bind to Wnt-1 and enhance Induced-induced developmental processes in Xenopus embryos. Mice lacking LRP-6 exhibited developmental defects that are similar to those caused by deficiencies in various Want proteins. Recent work also shows that Want proteins induce the binding of LRP-5 to Axin, leading Axin degradation and β-catenin stabilization.