

Rabbit LRP6 Polyclonal Antibody | anti-LRP6 antibody

LRP6 Antibody

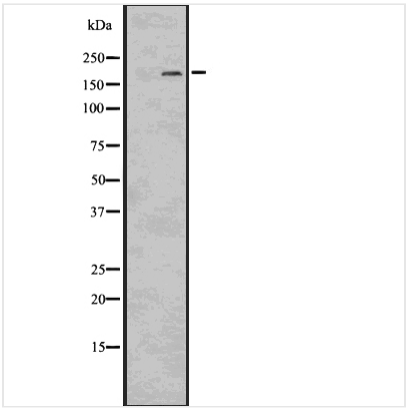
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA323711	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

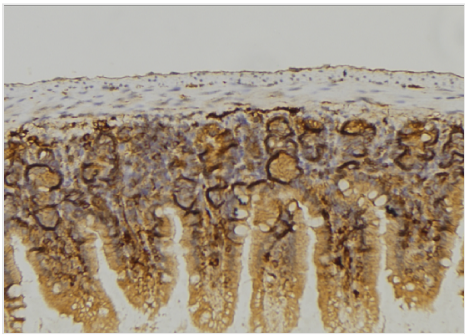
LRP6; Polyclonal Antibody; LRP6 Antibody; ADCAD2; C030016K15Rik; Cd; FLJ90062; FLJ90421; Low density lipoprotein receptor related protein 6; Low-density lipoprotein receptor-related protein 6; LRP-6; LRP6_HUMAN; OTTHUMP00000238979; OTTHUMP00000238980; OTTHUMP00000238982; anti-LRP6 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	LRP6 antibody detects endogenous levels of total LRP6
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1613
Applicable Applications for anti-LRP6 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human LRP6
Subcellular Location	Membrane. Endoplasmic Reticulum. 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.
Tissue Specificity	Widely coexpressed with LRP5 during embryogenesis and in adult tissues.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)
Western blot analysis of LRP6 using HepG2 whole cell lysates



IHC (Immunohistochemistry)
AAA323711 at 1/100 staining Mouse colon tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-LRP6 antibody	Function: 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). Subunit Structure: Homodimer; disulfide-linked. Forms phosphorylated oligomer aggregates on Wnt-signaling. Forms a WNT-signaling complex formed of a WNT protein, a FZD protein and LRP5 or LRP6. Interacts (via the extracellular domain) with WNT1; the interaction is enhanced by prior formation of the Wnt/Fzd complex. Interacts (via the beta-propeller regions 3 and 4) with WNT3A. Interacts (via the beta-propeller regions 1 and 2) with WNT9B. Interacts with FZD5; the interaction forms a coreceptor complex for Wnt signaling and is inhibited by DKK1 and DRAXIN. Interacts (via beta propeller region) with DKK1; the interaction inhibits FZD5/LRP6 complex formation. Interacts with DKK2. Interacts with C1orf187/DRAXIN; the interaction inhibits Wnt signaling (By similarity). Interacts (via the phosphorylated PPPSP motifs) with AXIN1; the interaction recruits the AXIN1/GSK3B complex to cell surface LRP6 signalsomes. Interacts with GRB10; the interaction prevents AXIN1 binding, thus negatively regulating the Wnt signaling pathway (By similarity). Interacts (via the extracellular domain) with RSPO1; the interaction activates Wnt/beta-catenin signaling. Interacts (via the extracellular domain) with RSPO3 (via the cysteine rich domain); the interaction activates Wnt/beta-catenin signaling. Interacts (via the beta-propeller regions 1 and 2) with SOST; the interaction competes with DKK1 for binding for inhibiting beta-catenin signaling. Interacts with MESD; the interaction prevents the formation of LRP6 aggregates and targets LRP6 to the plasma membrane (By similarity). Interacts (via the cytoplasmic domain) with CSNKIE; the interaction phosphorylates LRP6, binds AXIN1 and inhibits AXIN1/GSK3B-mediated phosphorylation of beta-catenin. Interacts with MACF1. Interacts with DAB2; the interaction involves LRP6 phosphorylation by CK2 and sequesters LRP6 towards clathrin-mediated endocytosis. Interacts with TMEM198. Interacts with CAPRIN2; the interaction promotes LRP6 phosphorylation at Ser-1490 (PubMed:18762581, PubMed:25331957). Found in a complex with CAPRIN2, CCNY and CDK14 during G2/M stage; CAPRIN2 functions as a scaffold for the complex by binding to CCNY via its N terminus and to CDK14 via its C terminus (PubMed:27821587). Interacts with LYPD6 (PubMed:23987510). Forms a ternary complex with DKK1 and KREM1 (PubMed:27524201). Interacts with KREM1 in a DKK1-dependent manner (PubMed:17804805). Post-translational Modifications: Dual phosphorylation of cytoplasmic PPPSP motifs sequentially by GSK3 and CK1 is required for AXIN1-binding, and subsequent stabilization and activation of beta-catenin via preventing GSK3-mediated phosphorylation of beta-catenin. Phosphorylated, in vitro, by GRK5/6 within and outside the PPPSP motifs. Phosphorylation at Ser-1490 by CDK14 during G2/M phase leads to regulation of the Wnt signaling pathway during the cell cycle. Phosphorylation by GSK3B is induced by RPSO1 binding and inhibited by DKK1. Phosphorylated, in vitro, by casein kinase I on Thr-1479. Undergoes gamma-secretase-dependent regulated intramembrane proteolysis (RIP). The extracellular domain is first released by shedding, and then, through the action of gamma-secretase, the intracellular domain (ICD) is released into the cytoplasm where it is free to bind to GSK3B and to activate canonical Wnt signaling. Palmitoylation on the two sites near the transmembrane domain leads to release of LRP6 from the endoplasmic reticulum. Mono-ubiquitinated which retains LRP6 in the endoplasmic reticulum. Ubiquitinated by ZNRF3, leading to its degradation by the proteasome. N-glycosylation is required for cell surface location. Similarity: The YWTD-EGF-like domains 1 and 2 are required for the interaction with Wnt-frizzled complex. The YWTD-EGF-like domains 3 and 4 are required for the interaction with DKK1. The PPPSP motifs play a central role in signal transduction by being phosphorylated, leading to activate the Wnt signaling pathway. Belongs to the LDLR family.
References	Zhu Y, Wang M, Zhao X, Zhang L, Wu Y, Wang B, Hu W; Journal: Oncotarget. Rottlerin as a novel chemotherapy agent for adrenocortical carcinoma.

NCBI AND UNIPROT INFORMATION

NCBI GI #	148727288
NCBI GeneID	4040
NCBI Accession #	NP_002327.2
NCBI GenBank Nucleotide #	NM_002336.2
UniProt Accession #	O75581; Q17RZ2
Molecular Weight	Observed: 180 kD Predicted: 181 kDa

NCBI Official Full Name	low-density lipoprotein receptor-related protein 6
NCBI Official Synonym Full Names	LDL receptor related protein 6
NCBI Official Symbol	LRP6
NCBI Official Synonym Symbols	ADCAD2; STHAG7
NCBI Protein Information	low-density lipoprotein receptor-related protein 6
UniProt Protein Name	Low-density lipoprotein receptor-related protein 6
UniProt Gene Name	LRP6
UniProt Synonym Gene Names	LRP-6

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/lrp6-antibody-immunohistochemistry-western-blot-elisa/323711>