

Rabbit LRP5 Polyclonal Antibody | anti-LRP5 antibody

Phospho-LRP5 (Tyr1473) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329422	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (100%), Rabbit (88%), Dog (100%), Chicken (100%), Xenopus (100%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

LRP5; Polyclonal Antibody; Phospho-LRP5 (Tyr1473) Antibody; BMND1; EVR1; EVR4; HBM; Low density lipoprotein receptor related protein 5; Low density lipoprotein receptor related protein 7; Low-density lipoprotein receptor-related protein 5; LR3; LRP-5; Lrp5; LRP5_HUMAN; LRP7; OPPG; OPS; OPTA1; Osteoporosis pseudoglioma syndrome; VBCH2; anti-LRP5 antibody

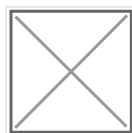
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (100%), Rabbit (88%), Dog (100%), Chicken (100%), Xenopus (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-LRP5 (Tyr1473) Antibody detects endogenous levels of LRP5 only when phosphorylated at Tyr1473. Tissue Specificity: Widely expressed, with the highest level of expression in the liver and in aorta.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-LRP5 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human LRP5 around the phosphorylation site of Tyr1473.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylation of cytoplasmic PPPSP motifs regulates the signal transduction of the Wnt signaling pathway through acting as a docking site for AXIN1.
Subunit Structure	Homodimer; disulfide-linked. Forms phosphorylated oligomer aggregates on Wnt-signaling (By similarity). Component of a Wnt-signaling complex that contains a WNT protein, a FZD protein and LRP5 or LRP6. Interacts with FZD8; the interaction is formed on WNT-binding and signaling. Interacts (via the phosphorylated PPPSP motif domains) with AXIN1; the interaction prevents inhibition of beta-catenin phosphorylation and signaling and is enhanced in the presence of GSK3B and WNT1 or WNT3A. Interacts (via beta-propeller regions 3 and 4) with DKK1; the interaction, enhanced by MESD and/or KREMEN, inhibits beta-catenin signaling by preventing GSK3-mediated phosphorylation of the PPPSP motifs and subsequent, AXIN1 binding. Interacts with MESD; the interaction prevents the formation of LRP5 aggregates, targets LRP5 to the plasma membrane and, when complexed with KREMEN2, increases DKK1 binding. Interacts with CSNK1E. Interacts with SOST; the interaction antagonizes canonical Wnt signaling. Interacts with APCDD1. Interacts with CAPRIN2.
Similarity	Belongs to the LDLR family.
Subcellular Location	Membrane>Single-pass type I membrane protein. Endoplasmic reticulum. Note: Chaperoned to the plasma membrane by MESD.

Preparation and Storage

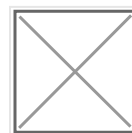
Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



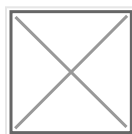
IHC (Immunohistochemistry)

At 1/100 staining Mouse lung 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 primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



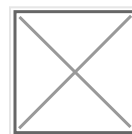
IHC (Immunohistochemistry)

At 1/100 staining Mouse testis 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 primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of extracts from SW620, using Phospho-LRP5(Tyr1473) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.



WB (Western Blot)

Western blot analysis of extracts from DU145 cells, using Phospho-LRP5(Tyr1473) Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-LRP5 antibody

Acts as a coreceptor with members of the frizzled family of seven-transmembrane spanning receptors to transduce signal by Wnt proteins. Activates the canonical Wnt signaling pathway that controls cell fate determination and self-renewal during embryonic development and adult tissue regeneration. 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. 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. 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. Plays a role in controlling postnatal vascular regression in retina via macrophage-induced endothelial cell apoptosis (By similarity).

NCBI AND UNIPROT INFORMATION

NCBI GI #	119709832
NCBI GeneID	4041
NCBI Accession #	NP_002326.2
NCBI GenBank Nucleotide #	NM_002335.3
UniProt Accession #	O75197; Q96TD6; Q9UES7; Q9UP66
Molecular Weight	179,145 Da
NCBI Official Full Name	low-density lipoprotein receptor-related protein 5 isoform 1
NCBI Official Synonym Full Names	low density lipoprotein receptor-related protein 5
NCBI Official Symbol	LRP5
NCBI Official Synonym Symbols	HBM; LR3; OPS; EVR1; EVR4; LRP7; OPPG; BMND1; LRP-5; OPTA1; VBCH2
NCBI Protein Information	low-density lipoprotein receptor-related protein 5; low density lipoprotein receptor-related protein 7
UniProt Protein Name	Low-density lipoprotein receptor-related protein 5
UniProt Gene Name	LRP5

UniProt Synonym Gene Names	LR3; LRP7; LRP-5
UniProt Entry Name	LRP5_HUMAN

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/lrp5-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/329422>