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Anti-LRP5 Reference Antibody (ModMap patent anti-LRP5)

Catalog # APR11506

Product Information

Application	Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA
Primary Accession	O75197
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	179145

Additional Information

Target/Specificity	LRP5
Expression system	CHO

Protein Information

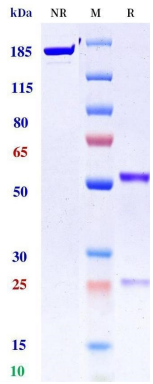
Name	LRP5 {ECO:0000303|PubMed:24706814, ECO:0000312|HGNC:HGNC:6697}
Function	Acts as a coreceptor with members of the frizzled family of seven-transmembrane spanning receptors to transduce signal by Wnt proteins (PubMed:11336703, PubMed:11448771, PubMed:11719191, PubMed:15778503, PubMed:15908424, PubMed:16252235). 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:14731402, PubMed:24706814, PubMed:25920554). 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:16252235, PubMed:27228167). 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}

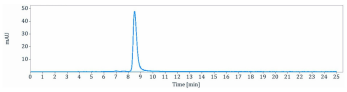
Tissue Location

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

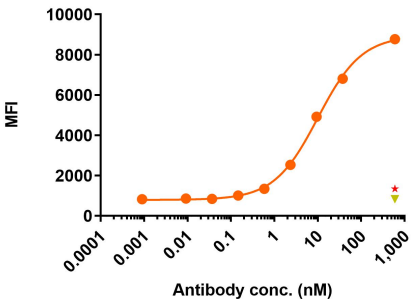
Images



Anti-Integrin α9 Reference Antibody (Gene Techno patent anti-Integrin α9) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.



The purity of Anti-LRP5 Reference Antibody (ModMap patent anti-LRP5) is 98.6%, determined by SEC-HPLC.



Hu-LRP5-full-P2A-EGFP-CHO-S-A7 cell line were stained with ModMap patent anti-LRP5 and negative control protein respectively, washed and then followed by PE and analyzed with FACS, with the EC50 is 9.089 nM.

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