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Anti-LRP6 Reference Antibody (Novartis patent anti-LRP6)

Catalog # APR11399

Product Information

Application	Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA
Primary Accession	O75581
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1-LALA-REM
Calculated MW	180429

Additional Information

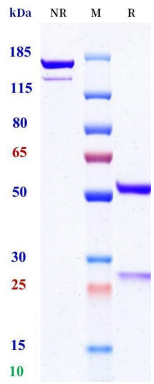
Target/Specificity	LRP6
Expression system	CHO

Protein Information

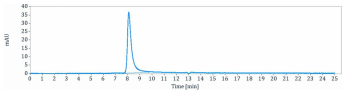
Name	LRP6
Function	Component of the Wnt-Fzd-LRP5-LRP6 complex that triggers beta-catenin signaling through inducing aggregation of receptor-ligand complexes into ribosome-sized signalosomes (PubMed:11357136, PubMed:11448771, PubMed:15778503, PubMed:16341017, PubMed:16513652, PubMed:17326769, PubMed:17400545, PubMed:19107203, PubMed:19293931, PubMed:19801552, PubMed:28341812, PubMed:34896607). Cell-surface coreceptor of Wnt/beta-catenin signaling, which plays a pivotal role in various processes including retinal angiogenesis and bone formation (PubMed:11357136, PubMed:11448771, PubMed:15778503, PubMed:16341017, PubMed:16513652, PubMed:17326769, PubMed:17400545, PubMed:19107203, PubMed:19293931, PubMed:19801552, PubMed:28341812, PubMed:34896607). 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 signalosomes and inhibiting AXIN1/GSK3-mediated phosphorylation and destruction of beta-catenin (PubMed:16513652). 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- signalosomes (By similarity).

	Chaperoned to the plasma membrane by HSP90B1 and MESD (PubMed:23572575). {ECO:0000250|UniProtKB:O88572, ECO:0000269|PubMed:23572575}
Tissue Location	Widely coexpressed with LRP5 during embryogenesis and in adult tissues

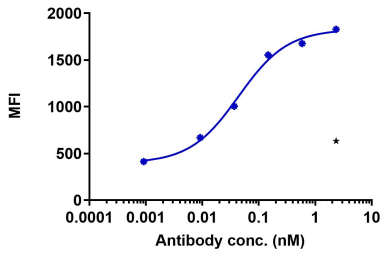
Images



Anti-LRP6 Reference Antibody (Novartis patent anti-LRP6) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.



The purity of Anti-LRP6 Reference Antibody (Novartis patent anti-LRP6) is 100%, determined by SEC-HPLC.



PA-1 cells were stained with Novartis patent anti-LRP6 and negative control protein respectively, washed and then followed by PE and analyzed with FACS, with the EC50 is 0.044 nM.

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