Active Recombinant Human LRP1 protein, Fc-tagged

Cat. No. LRP1-654H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human LRP1 Cluster IV(Ser3332 - Asp3779) fussed with Fc of Human IgG1 (Pro100 - Lys330) at C-terminal was expressed in CHO.
Species	Human
Source	CHO
ProteinLength	3332-3779 a.a.
Description	LDL receptorrelated protein 1 (LRP1), also known as CD91 and the α2macroglobulin receptor, is a type I transmembrane protein in the LDL receptor superfamily. It is expressed on neurons, hepatocytes, adipocytes, vascular smooth muscle cells, fibroblasts, keratinocytes, macrophages, and megakaryocytes. LRP1 is important for the clearance of a large number of circulating molecules involved in fatty acid metabolism and the inhibition of serine proteases. LRP1 also associates, or through intracellular scaffold proteins, with other membrane associated proteins on the same cell. This allows LRP1 to modulate the activity or internalization of PDGFRβ, NMDA receptor subunits, TGFβ receptors, Frizzled1, various integrins, and the prion proteinPrPC. Human LRP 1 is N glycosylated and sialylated, and cleaved in the Golgi to produce an 85 kDa transmembrane beta chain, and a 515 kDa alpha chain. Both associate noncovalently, with the beta chain remaining completely extracellular. The alpha chain of LRP 1 contains 31 LDLR class A repeats, 34 LDLR class B repeats, and 22 EGFlike repeats. The LDLR domains are clustered in four regions throughout the protein. Cluster II (aa 786 1165) contains one EGFlike and eight LDLR class A

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	repeats. Cluster II contains binding sites for Apolipoprotein E, LPL, LRPAP/RAP, alpha 2 Macroglobulin, Coagulation Factor VIII light chain, Lactoferrin, PAI1, tPAPAI1 complexes, ProuPA, and TFPI. Within this region, human LRP1 shares 99% aa sequence identity with mouse and rat LRP1. A shed soluble form of LRP1 circulates in the serum and retains ligand binding properties.
Predicted N Terminal	Ser3332
Form	Lyophilized from a 0.2 μm filtered solution in PBS.
Bio-activity	Measured by its binding ability in a functional ELISA.When rhLRP-1C4/Fc Chimera is immobilized at 50 ng/mL, 100 μl/well, the concentration of rhLRPAP that produces 50% of the optimal binding response is found to be approximately 0.5 - 2.5 ng/mL.
Molecular Mass	Predicted Molecular Mass:76.7 kDa;SDS-PAGE:110-120 kDa, reducing conditions
Endotoxin	< 1.0 EU per 1 μg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Stability	Avoid repeated freeze-thaw cycles.12 months from date of receipt, -20 to -70 centigrade as supplied.1 month, 2 to 8 centigrade under sterile conditions after reconstitution.3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 100 μg/mL in PBS.

GENE INFORMATION

Gene Name	LRP1 low density lipoprotein receptor-related protein 1 [Homo sapiens]

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Official Symbol	LRP1
Synonyms	APR; LRP; A2MR; CD91; APOER; LRP1A; TGFBR5; IGFBP3R; prolow-density lipoprotein receptor-related protein 1; LRP-1; TbetaR-V/LRP-1/IGFBP-3 receptor; alpha-2-macroglobulin receptor; apolipoprotein E receptor; type V tgf-beta receptor
Gene ID	4035
mRNA Refseq	NM_002332
Protein Refseq	NP_002323
MIM	107770
UniProt ID	Q07954
Chromosome Location	12q13.3
Pathway	Alzheimer's disease, organism-specific biosystem; Alzheimer's disease, conserved biosystem; Binding and Uptake of Ligands by Scavenger Receptors, organism-specific biosystem
Function	apolipoprotein binding; apolipoprotein binding; calcium ion binding

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