

Recombinant Human LRP2 Protein, His tagged

Cat. No. LRP2-10H **Lot. No.** (See product label)

SPECIFICATION

Product Overview Recombinant Human LRP2 Protein (Pro3510-Lys3964) with a C-terminal 6-His tag was expressed in Mouse myeloma cell line.

Species Human

Source Mouse myeloma cell line

ProteinLength 3510-3964 aa

Description

The protein encoded by this gene, low density lipoprotein-related protein 2 (LRP2) or megalin, is a multi-ligand endocytic receptor that is expressed in many different tissues but primarily in absorptive epithelial tissues such as the kidney. This glycoprotein has a large amino-terminal extracellular domain, a single transmembrane domain, and a short carboxy-terminal cytoplasmic tail. The extracellular ligand-binding-domains bind diverse macromolecules including albumin, apolipoproteins B and E, and lipoprotein lipase. The LRP2 protein is critical for the reuptake of numerous ligands, including lipoproteins, sterols, vitamin-binding proteins, and hormones. This protein also has a role in cell-signaling; extracellular ligands include parathyroid hormones and the morphogen sonic hedgehog while cytosolic ligands include MAP kinase scaffold proteins and JNK interacting proteins. Recycling of this membrane receptor is regulated by phosphorylation of its cytoplasmic domain. Mutations in this gene cause Donnai-Barrow syndrome (DBS) and facio-oculoacoustico-renal syndrome (FOAR). The amino acid 3510-3964 encodes the fourth class A motif cluster in human Megalin, termed Megalin C4. Human Megalin C4

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	shares 77% and 74% identity with mouse and rat Megalin C4.
Form	Lyophilized from a 0.2 µm filtered solution in PBS.
Molecular Mass	52 kDa
Endotoxin	< 0.10 EU/µg of the protein by the LAL method.
Purity	> 80%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie Blue Staining.
Storage	Use a manual defrost freezer and 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.
Shipping	The product is shipped at ambient temperature.
Reconstitution	Reconstitute at 250 µg/mL in PBS.
Reference	1. Christensen, E. I. and Birn, H. (2002) Nat. Rev. Mol. Cell Biol 3:256. 2. Saito, A. et al. (1994) Proc.Natl. Aca. Sci. U. S. A. 91:9725. 3. Kantarci, S. et al. (2007) Nat. Genet 39:957.
N-terminal Sequence Analysis	Pro3510 and Thr3515

GENE INFORMATION

Gene Name LRP2 LDL receptor related protein 2 [Homo sapiens (human)]

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Official Symbol	LRP2
Synonyms	LRP2; LDL receptor related protein 2; DBS; GP330; LRP-2; low-density lipoprotein receptor-related protein 2; Heymann nephritis antigen homolog; calcium sensor protein; glycoprotein 330; megalin
Gene ID	4036
mRNA Refseq	NM_004525
Protein Refseq	NP_004516
MIM	600073
UniProt ID	P98164

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