

## LRP1 Protein, Human, Recombinant (Cluster II, His)

### General Information

Synonyms:	CD91;APOER;IGFBP-3R;LRP1A;IGFBP3R1;LRP;A2MR;TGFB5;KPA;DDH3;IGFBP3R;APR
Protein Construction:	A DNA sequence encoding the Human LRP1 (Q07954) (Arg786-Leu1165) was expressed with a polyhistidine tag at the C-terminus.
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q07954
Molecular Weight:	42.96 kDa (predicted); 76 kDa (reducing condition)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	≥ 95% as determined by SDS-PAGE. ≥ 95% as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from sterile PBS, pH 7.4. Please contact us for any concerns or special requirements. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hardcopy of datasheet or the lot-specific COA.

### Preparation and Storage

#### Reconstitution:

Please refer to the lot-specific COA.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Low-density lipoprotein receptor-related protein 1 (LRP1), also known as alpha-2-macroglobulin receptor (A2MR), apolipoprotein E receptor (APOER), or cluster of differentiation 91 (CD91), is an endocytic receptor involved in several cellular processes. LRP1 / CD91 is a member of the cluster of differentiation (CD) system. The cluster of differentiation (CD) system is commonly used as cell markers in Immunophenotyping. Different kinds of cells in the

immune system can be identified through the surface CD molecules associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alters the behavior of the cell. Some CD proteins do not take part in the cell signal process but have other functions such as cell adhesion. LRP1 / CD91 is involved in endocytosis and phagocytosis of apoptotic cells and is required for early embryonic development. LRP1 / CD91 is also involved in cellular lipid homeostasis, the plasma clearance of chylomicron remnants, activated LRPAP1 (alpha 2-macroglobulin), and the local metabolism of complexes between plasminogen activators and their endogenous inhibitors. LRP1 / CD91 May modulate cellular events, such as APP metabolism kinase-dependent intracellular signaling, neuronal calcium signaling as well as neurotransmission need the involvement of LRP1 / CD91.

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