



# Recombinant Protein Technical Manual

## Recombinant Mouse LDLR Protein (His Tag)(Active)

RPES3000

### Product Data:

**Product SKU:** RPES3000

**Size:** 20µg

**Species:** Mouse

**Expression host:** HEK293 Cells

**Uniprot:** NP\_034830.2

### Protein Information:

**Molecular Mass:** 85.7 kDa

**AP Molecular Mass:** 12030 kDa

**Tag:** C-His

**Bio-activity:** Measured by its binding ability in a functional ELISA. Immobilized Rat PCSK9 at 10 µg/ml (100 µl/well) can bind biotinylated recombinant mouse LDLR. The EC50 of biotinylated mouse LDLR is 0.173 µg/ml.

**Purity:** > 90 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** Functional ELISA

**Synonyms:** Hlb301

## Immunogen Information:

**Sequence:** Met 1-Arg 790

## Background:

LDL Receptor, also known as LDLR, is a mosaic protein which belongs to the Low density lipoprotein receptor gene family. The low density lipoprotein receptor (LDLR) gene family consists of cell surface proteins involved in receptor-mediated endocytosis of specific ligands. LDL Receptor consists of 840 amino acids (after removal of signal peptide) and mediates the endocytosis of cholesterol-rich LDL. Low density lipoprotein (LDL) is normally bound at the cell membrane and taken into the cell ending up in lysosomes where the protein is degraded and the cholesterol is made available for repression of microsomal enzyme 3-hydroxy-3-methylglutaryl coenzyme A (HMG CoA) reductase, the rate-limiting step in cholesterol synthesis. At the same time, a reciprocal stimulation of cholesterol ester synthesis takes place. LDL Receptor is a cell-surface receptor that recognizes the apoprotein B100 which is embedded in the phospholipid outer layer of LDL particles. The receptor also recognizes the apoE protein found in chylomicron remnants and VLDL remnants.