

### Synonym

VLDLR,RP11-320E16.1,CHRMQ1,FLJ35024,VLDLRCH,VLDL receptor

### Source

Human VLDL R, His Tag(VLR-H5227) is expressed from human 293 cells (HEK293). It contains AA Gly 28 - Ser 769 (Accession # <u>P98155-2</u>). Predicted N-terminus: Gly 28

# **Molecular Characterization**

VLDL R(Gly 28 - Ser 769) P98155-2 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 84.0 kDa. The protein migrates as 90-110 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to different glycosylation.

## Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

## Purity

>90% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22  $\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

### Storage

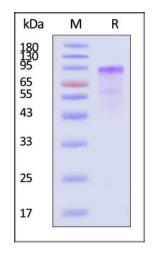
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- $-70^{\circ}$ C for 3 months under sterile conditions after reconstitution.

# **SDS-PAGE**



Human VLDL R, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

#### **Bioactivity-ELISA**



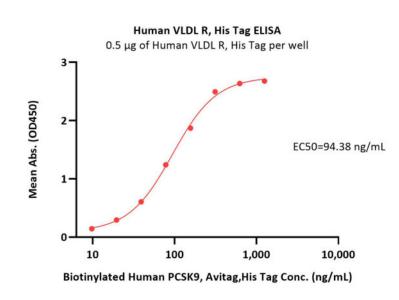
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5/15/2024

# Human VLDL R Protein, His Tag

Catalog # VLR-H5227





Immobilized Human VLDL R, His Tag (Cat. No. VLR-H5227) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human PCSK9, Avitag, His Tag (Cat. No. PC9-H82E7) with a linear range of 10-156 ng/mL (QC tested).

#### Background

The very-low-density-lipoprotein receptor (VLDL-R) is a lipoprotein receptor that shows considerable similarity to the lowdensity-lipoprotein receptor. VLDL R is a 130 kDa type I transmembrane protein in the LDL receptor family that plays a significant role in lipid metabolism and in nervous system development and function .This receptor has been suggested to be important for the metabolism of apoprotein-E-containing triacylglycerol-rich lipoproteins, such as very-low-densitylipoprotein (VLDL), beta-migrating VLDL and intermediate-density lipoprotein. It is also one of the receptors of reelin, an extracellular matrix protein which regulates the processes of neuronal migration and synaptic plasticity. In humans, the VLDL-R is encoded by the VLDLR gene. A rare neurological disorder first described in the 1970s under the name "disequilibrium syndrome" is now considered to be caused by the disruption of VLDLR gene. The disorder was renamed VLDLR-associated cerebellar hypoplasia (VLDLRCH) after a 2005 study. It is associated with parental consanguinity and found in secluded communities such as the Hutterites. VLDLRCH is one of the two known genetic disorders caused by a disruption of reelin signaling pathway, along with Norman-Roberts syndrome.

#### **Clinical and Translational Updates**



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