

Recombinant Human VLDLR/VLDL Receptor Protein (His Tag)

Catalog No. PKSH031275

Note: Centrifuge before opening to ensure complete recovery of vial contents.

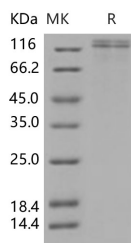
Description

| | |
|------------------------------------|--|
| Synonyms | CAMRQ1;CARMQ1;CHRMQ1;VLDLRCH |
| Species | Human |
| Expression Host | HEK293 Cells |
| Sequence | Met 1-Ser 797 |
| Accession | NP_003374.3 |
| Calculated Molecular Weight | 86.0 kDa |
| Observed molecular weight | 150 & 180 kDa |
| Tag | C-His |
| Bioactivity | Immobilized human VLDLR-His at 10µg/mL (100µL/well) can bind biotinylated human LRPAP1-His, the EC50 of biotinylated human LRPAP1-His is 0.05-0.2 µg/mL. |

Properties

| | |
|-----------------------|---|
| Purity | > 95 % as determined by reducing SDS-PAGE. |
| Endotoxin | < 1.0 EU per µg of the protein as determined by the LAL method. |
| Storage | Generally, 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 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual. |
| Reconstitution | Please refer to the printed manual for detailed information. |

Data



> 95 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

The very low density lipoprotein receptor, known as VLDLR, is a single-pass type 1 integral membrane protein and a member of the LDL receptor family. This receptor family includes LDL receptor, LRP, megalin, VLDLR and ApoER2, and is characterized by a cluster of cysteine-rich class A repeats, epidermal growth factor (EGF)-like repeats, YWTD repeats and an O-linked sugar domain. VLDLR contains 3 EGF-like domains, 8 LDL-receptor class A domains, as well as 6 LDL-receptor class B repeats, and is abundant in heart, skeletal muscle, also ovary and kidney, but not in liver. VLDLR binds VLDL and transports it into cells by endocytosis. In order to be internalized, the receptor-ligand complexes must first cluster into clathrin-coated pits. VLDLR mediates the phosphorylation of mDab1 (mammalian disabled protein) via binding to Reelin, and induces the modulation of Tau phosphorylation. This pathway regulates the migration of neurons along the radial glial fiber network during brain development. Defects of VLDLR may be the cause of VLDLR-associated cerebellar hypoplasia (VLDLRCH), a syndrome characterized by moderate-to-profound mental retardation, delayed ambulation, and predominantly truncal ataxia.