Recombinant Protein Technical Manual

Recombinant Human VLDLR/VLDL Receptor Protein (His Tag)(Active)

RPES3836

Product Data:

Product SKU: RPES3836

Size: 50µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_003374.3

Protein Information:

Molecular Mass:	86 kDa
AP Molecular Mass:	150 & 180 kDa
Tag:	C-His
Bio-activity:	Measured by its binding ability in a functional ELISA. 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.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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:	CAMRQ1;CARMQ1;CHRMQ1;VLDLRCH

Immunogen Information:

Sequence: Met 1-Ser 797

Background:

The very low density lipoprotein receptor, known as VLDLR, is a single-pass type 1 integral membrance 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.