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VLDL Receptor Rabbit pAb

Catalog # AP99578

Product Information

Primary Accession	P98155
Other Accession	P98155
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	96098
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human VLDL Receptor
Epitope Specificity	551-650/873
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 3 EGF-like domains.Contains 8 LDL-receptor class A domains.Contains 6 LDL-receptor class B repeats.
SUBUNIT	Binds to the extracellular matrix protein Reelin. Interacts with VLDLR. Interacts with SNX17. Interacts with DAB1. Receptor for the minor-group human rhinoviruses (HRVs); binds protein VP1 through the second and third LDL-receptor class A domains.
Post-translational modifications	Abundant in heart and skeletal muscle; also ovary and kidney; not in liver.
DISEASE	Defects in VLDLR are the cause of cerebellar ataxia mental retardation and dysequilibrium syndrome type 1 (CMARQ1) [MIM:224050]; also known as dysequilibrium syndrome (DES) or non-progressive cerebellar disorder with mental retardation. CMARQ1 is a congenital, non-progressive cerebellar ataxia associated with disturbed equilibrium, delayed ambulation, mental retardation and cerebellar hypoplasia. Additional features include short stature, strabismus, pes planus and, rarely, seizures.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	VLDL (very low density lipoprotein) cholesterol is one of the three major types of cholesterol found in blood. VLDL receptor plays an essential role in triglyceride metabolism. It 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. Binding to Reelin induces tyrosine phosphorylation of Dab1 and modulation of Tau phosphorylation.

Additional Information

Gene ID	7436
Other Names	CAMRQ1; CARMQ1; CHRMQ1; VLDL-R; VLDLRCH; VLDLR_HUMAN; VLDLR; VLDL receptor; VLDLR_MOUSE; VLDLR_RAT; very low density lipoprotein receptor

Dilution	ICC/IF=1:50-200
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	VLDLR
Function	Multifunctional cell surface receptor that binds VLDL and transports it into cells by endocytosis and therefore plays an important role in energy metabolism. Also binds to a wide range of other molecules including Reelin/RELN or apolipoprotein E/APOE- containing ligands as well as clusterin/CLU (PubMed:24381170, PubMed:30873003). In the off-state of the pathway, forms homooligomers or heterooligomers with LRP8 (PubMed:30873003). Upon binding to ligands, homooligomers are rearranged to higher order receptor clusters that transmit the extracellular RELN signal to intracellular signaling processes by binding to DAB1 (PubMed:30873003). This interaction results in phosphorylation of DAB1 leading to the ultimate cell responses required for the correct positioning of newly generated neurons. Later, mediates a stop signal for migrating neurons, preventing them from entering the marginal zone (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein Membrane, clathrin-coated pit; Single-pass type I membrane protein
Tissue Location	Abundant in heart and skeletal muscle; also ovary and kidney; not in liver

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.