

VLDLR Antibody (clone 1H10) Mouse Monoclonal Antibody Catalog # ALS14939

# Specification

# VLDLR Antibody (clone 1H10) - Product Information

Application	IHC
Primary Accession	<u>P98155</u>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	96kDa KDa

# VLDLR Antibody (clone 1H10) - Additional Information

Gene ID 7436

**Other Names** Very low-density lipoprotein receptor, VLDL receptor, VLDL-R, VLDLR

**Target/Specificity** Binds to an epitope on the C-terminus of the ligand binding domain (aa191-355) of VLDL receptor and blocks apoE4 binding.

**Reconstitution & Storage** Long term: -70°C; Short term: -70°C

**Precautions** VLDLR Antibody (clone 1H10) is for research use only and not for use in diagnostic or therapeutic procedures.

### VLDLR Antibody (clone 1H10) - 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. Binds also to a wide range of other molecules including Reelin/RELN or apolipoprotein E/APOE- containing ligands as well as clusterin/CLU (PubMed:<a href="http://www.uniprot.org/citations/24381170" target="\_blank">24381170</a>, PubMed:<a href="http://www.uniprot.org/citations/24381170" target="\_blank">30873003</a>). In the off-state of the pathway, forms homooligomers or heterooligomers with LRP8 (PubMed:<a href="http://www.uniprot.org/citations/30873003" target="\_blank">30873003</a>). 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:<a href="http://www.uniprot.org/citations/30873003" target="\_blank">30873003</a>). 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** 

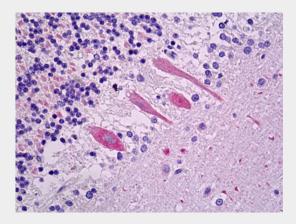
Abundant in heart and skeletal muscle; also ovary and kidney; not in liver

### VLDLR Antibody (clone 1H10) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### VLDLR Antibody (clone 1H10) - Images



Anti-VLDLR antibody IHC of human brain, cerebellum, Purkinje.

### VLDLR Antibody (clone 1H10) - Background

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 (By similarity).

### VLDLR Antibody (clone 1H10) - References

Gafvels M.E., et al.Somat. Cell Mol. Genet. 19:557-569(1993). Webb J.C., et al.Hum. Mol. Genet. 3:531-537(1994). Sakai J., et al.J. Biol. Chem. 269:2173-2182(1994). Oka K., et al.Genomics 20:298-300(1994). Humphray S.J., et al.Nature 429:369-374(2004).