10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

VLDLR Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP5754c

Specification

VLDLR Antibody (Center) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	P98155
Other Accession	P35953, NP_003374.3
Reactivity	**Human**
Predicted	**Rabbit**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**484-510**

VLDLR Antibody (Center) - Additional Information

Gene ID 7436

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

Target/Specificity
This VLDLR antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 484-510 amino acids from the Central region of human VLDLR.

Dilution
WB~~1:2000
IHC-P~~1:25
FC~~1:25

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
VLDLR Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

VLDLR Antibody (Center) - 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: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

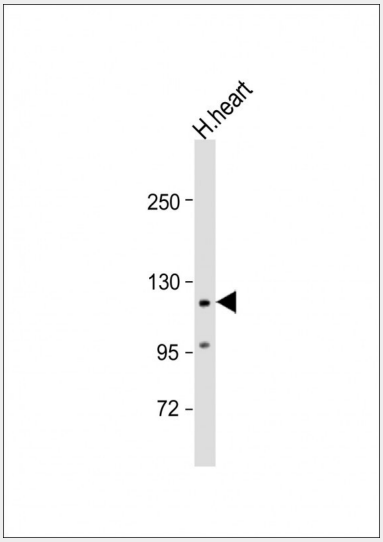
Tissue Location
Abundant in heart and skeletal muscle; also ovary and kidney; not in liver

VLDLR Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

VLDLR Antibody (Center) - Images



Anti-VLDLR Antibody (Center) at 1:2000 dilution + human heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 96 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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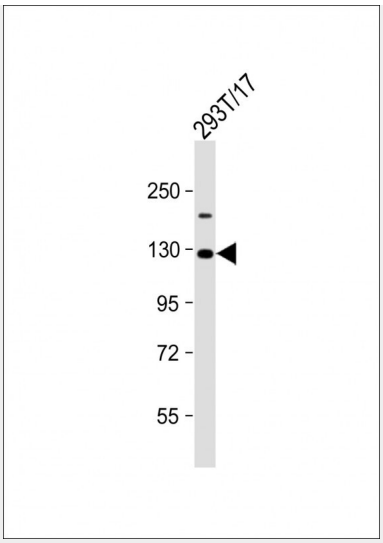
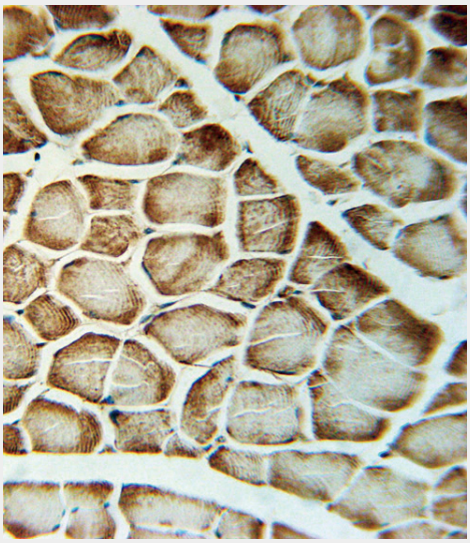


Anti-VLDLR Antibody (Center) at 1:2000 dilution + 293T/17 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 96 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



VLDLR Antibody (Center) (Cat. #AP5754c) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the VLDLR Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

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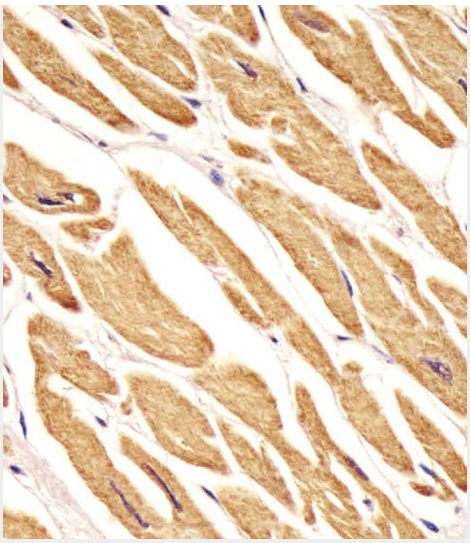
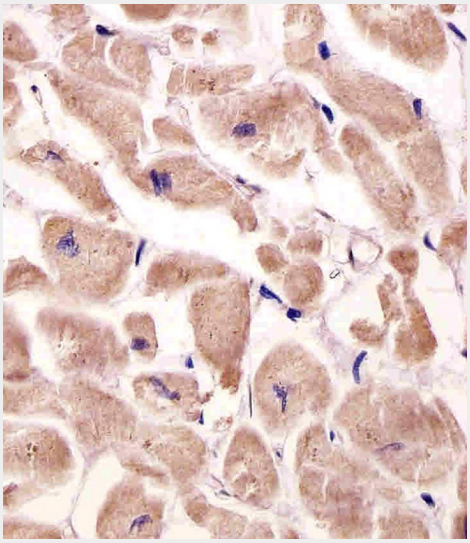


AP5754c staining VLDLR in human heart tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



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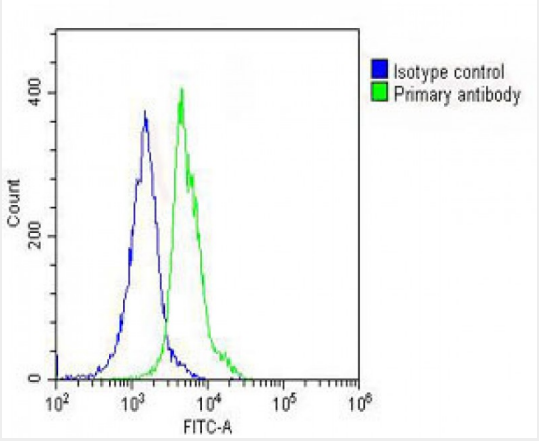

Overlay histogram showing THP-1 cells stained with AP5754c (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP5754c, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

VLDLR Antibody (Center) - Background

The low density lipoprotein receptor (LDLR) gene family consists of cell surface proteins involved in receptor-mediated endocytosis of specific ligands. This gene encodes a lipoprotein receptor that is a member of the LDLR family and plays important roles in VLDL-triglyceride metabolism and the reelin signaling pathway. Mutations in this gene cause VLDLR-associated cerebellar hypoplasia. Alternative splicing generates multiple transcript variants encoding distinct isoforms for this gene. [provided by RefSeq].

VLDLR Antibody (Center) - References

Sakai, K., et al. Brain Res. 1276, 11-21 (2009)
Francis, P.J., et al. J. Med. Genet. 46(5):300-307(2009)
Ananyeva, N.M., et al. Blood Coagul. Fibrinolysis 19(6):543-555(2008)
Turkmen, S., et al. Eur. J. Hum. Genet. 16(9):1070-1074(2008)

VLDLR Antibody (Center) - Citations

- Human extravillous trophoblasts bind but do not internalize antiphospholipid antibodies.