

Product datasheet for **TA336722**

LDL Receptor (LDLR) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, Simple Western, WB
Recommended Dilution:	Immunohistochemistry-Paraffin: 1:200 - 1:1000, Western Blot: 0.5 - 2 ug/ml, Knockout Validated, Simple Western: 1:100, Immunocytochemistry/ Immunofluorescence: 1 - 2 ug/ml, Immunohistochemistry: 1:200 - 1:1000
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide made to an internal portion of the human LDL Receptor protein (within residues 500-550). [Swiss-Prot# P01130]
Formulation:	PBS, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	low density lipoprotein receptor
Database Link:	NP_000518 Entrez Gene 16835 Mouse Entrez Gene 3949 Human P01130



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Background:

LDL Receptor (low-density lipoprotein receptor or LDLR) is a key determinant of plasma cholesterol levels and as a ubiquitously expressed cell membrane glycoprotein, it binds LDL, the major cholesterol-carrying lipoprotein of plasma, and transports it into cells via endocytosis. LDLR is found distributed from plasma membrane to intracellular compartments, cell surface (in the presence of PCSK9) and also localizes to Golgi apparatus as well as early/late endosomes and lysosomes. VLDL, IDL, HDL, and chylomicron remnant are also recognized by LDLR at neutral pH. Receptor-ligand complexes undergo endocytosis via clathrin-coated pits and coated vesicles dispense to endosomes with LRP6 and ARH (also known as LDLR adaptor protein), connecting LDLR family protein and the endocytic machinery; thereby, acidic condition activates dissociation of internalized ligands. Released ligand particles further travel to lysosomes wherein the ligand is degraded by enzyme, while the receptors recycle back to cell surface. After internalization, LDL particles trigger reduction in HMGCR expression to suppress cholesterol biosynthesis; enhancement of ACAT activity to reduce toxic free cholesterol, and suppression of LDLR synthesis to reduce LDL uptake via SREBPs. Genetic mutations impairing LDLR function results in a condition with extremely elevated serum LDL levels and early onset atherosclerosis known as familial hypercholesterolemia (FH).

Synonyms:

FH; FHC; LDLCQ2

Note:

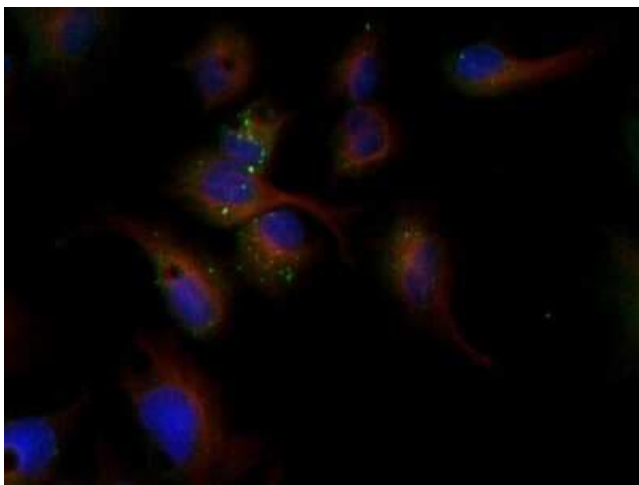
This LDL Receptor antibody is useful for Immunocytochemistry/Immunofluorescence and Western blot, where bands are seen ~95 kDa and ~160 kDa representing the unglycosylated and glycosylated forms of the LDL receptor, respectively.

Protein Families:

Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

Protein Pathways:

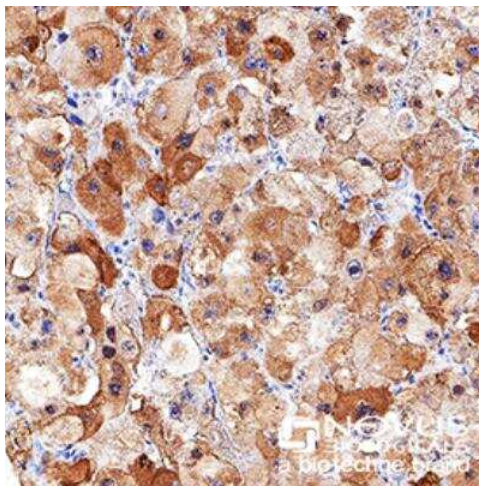
Endocytosis

Product images:

Immunocytochemistry/Immunofluorescence: LDL R Antibody TA336722 - LDL receptor antibody was tested in HepG2 cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).

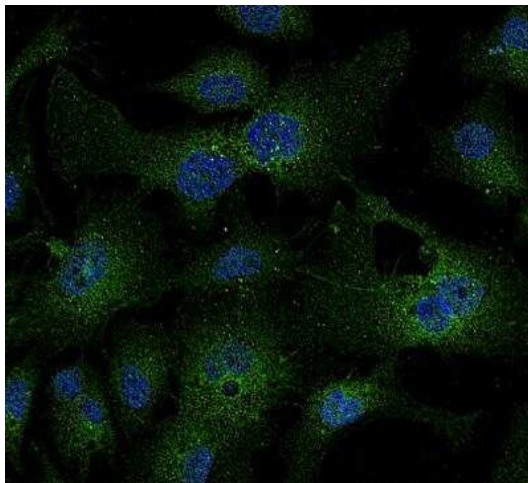


Simple Western: LDLR Antibody TA336722 - LDL R Antibody TA336722 - Simple Western lane view shows a specific band for LDL R in 0.05 mg/ml of HepG2 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.

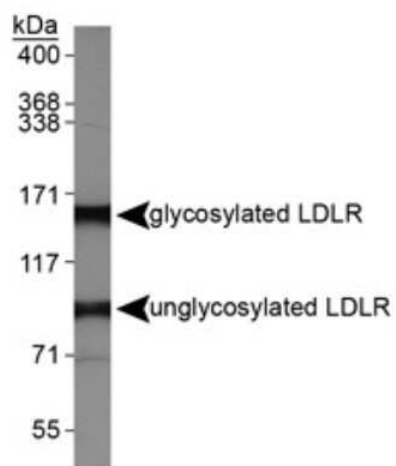


Immunohistochemistry-Paraffin: LDL R Antibody TA336722 - LDL Receptor was detected in immersion fixed paraffin-embedded sections of human liver cancer using rabbit anti-human antibody (Catalog # TA336722) at 1:3000 dilution overnight at 4C. Tissue was stained using the VisuCyte anti-rabbit HRP polymer detection reagent (Catalog # VC003) with DAB chromogen (brown) and counterstained with hematoxylin (blue).

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Immunocytochemistry/Immunofluorescence: LDLR Antibody TA336722 - HepG2 cells were fixed for 10 minutes using 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti-LDLR at 1 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:1000 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Western Blot: LDLR Antibody TA336722 - LDL R
Antibody TA336722 - Western Blot on HepG2
whole cell lysate.