10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

LDL-R Antibody

Catalog # ASC10904

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P01130
Other Accession	NP_000518, 4504975
Reactivity	Human, Mouse, Rat
Host	Chicken
Clonality	Polyclonal
Isotype	IgY
Calculated MW	95376
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	LDL-R antibody can be used for detection of LDL-R by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	3949
Other Names	Low-density lipoprotein receptor, LDL receptor, LDLR
Target/Specificity	LDLR;
Reconstitution & Storage	LDL-R antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	LDL-R Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LDLR
Function	Binds low density lipoprotein /LDL, the major cholesterol- carrying lipoprotein of plasma, and transports it into cells by endocytosis. In order to be internalized, the receptor-ligand complexes must first cluster into clathrin-coated pits. Forms a ternary complex with PGRMC1 and TMEM97 receptors which increases LDLR-mediated LDL internalization (PubMed:30443021).
Cellular Location	Cell membrane; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P01131}. Membrane, clathrin-coated pit. Golgi apparatus. Early endosome. Late endosome. Lysosome Note=Rapidly

endocytosed upon ligand binding. Localized at cell membrane, probably in lipid rafts, in serum-starved conditions (PubMed:30443021).

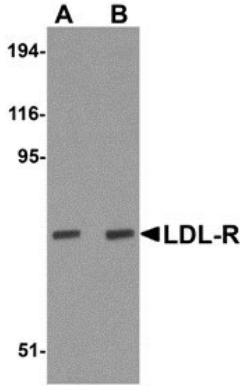
Background

LDL-R Antibody: The low density lipoprotein receptor (LDL-R) gene family consists of cell surface proteins involved in receptor-mediated endocytosis of specific ligands. Low density lipoprotein (LDL) is normally bound at the cell membrane and taken into the cell ending up in lysosomes where the protein is degraded and the cholesterol is made available for repression of microsomal enzyme 3-hydroxy-3-methylglutaryl coenzyme A (HMG CoA) reductase, the rate-limiting step in cholesterol synthesis. At the same time, a reciprocal stimulation of cholesterol ester synthesis takes place. Mutations in the LDL-R gene cause the autosomal dominant disorder, familial hypercholesterolemia. Along with SCARB1, CLDN1, and the tetraspanin superfamily member CD81, LDL-R has been reported to be an entry factor for the Hepatitis C virus. At least three isoforms of LDL-R are known to exist.

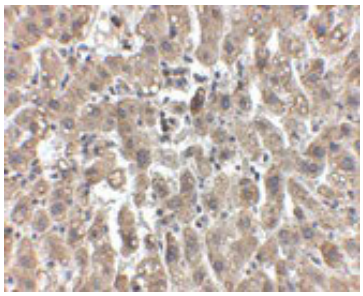
References

Li Y, Cam J, and Bu G. Low-density lipoprotein receptor family: endocytosis and signal transduction. Mol. Neurobiol.2001; 23:53-67.
Austin MA, Hutter CM, Zimmern RL, et al. Familial hypercholesterolemia and coronary heart disease: a HuGE association review. Am. J. Epidemiol.2004; 160:421-9.
Helle F and Dubuisson J. Hepatitis C virus entry into host cells. Cell Mol. Life Sci.2008; 65:100-12.

Images

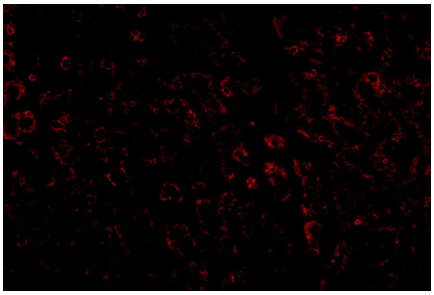


Western blot analysis of LDL-R in human liver tissue lysate with LDL-R antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of LDL-R in human liver tissue with LDL-R antibody at 2.5 µg/mL.

Immunofluorescence of LDLR in human liver tissue with LDLR antibody at 20 µg/mL.



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