

PRODUCT INFORMATION



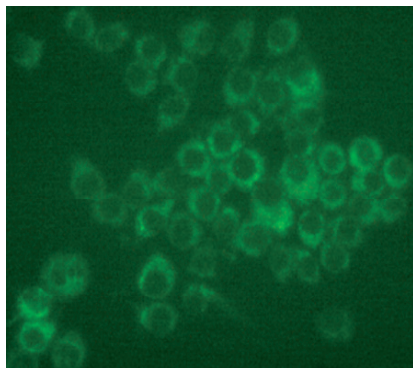
LDL Receptor Polyclonal Antibody

Item No. 10007665

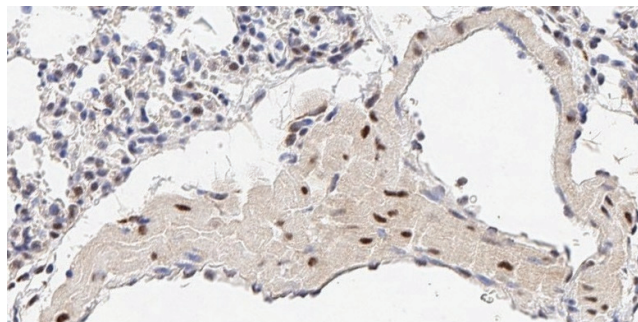
Overview and Properties

Contents:	This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonyms:	LDLR, Low Density Lipoprotein Receptor
Immunogen:	Synthetic peptide from the C-terminal region of mouse LDL Receptor
Species Reactivity:	(+) Human, mouse, and rat; other species not tested
Uniprot No.:	P35951
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	Immunocytochemistry (ICC), Immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution is 1:100 for ICC and IHC and 1:200 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Immunofluorescent staining of RAW 264.7 cells with Cayman's LDLR Polyclonal Antibody at 4 µg/ml. The positive cytoplasm staining was visualized in green with Cayman's Goat Anti-Rabbit IgG FITC (Item No. 10006588).



Immunohistochemistry (IHC) analysis of formalin-fixed, paraffin-embedded (FFPE) mouse lung tissue after heat-induced antigen retrieval in pH 6.0 citrate buffer. After incubation with LDL Receptor Polyclonal Antibody (Item No. 10007665), at a 1:100 dilution, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen (DAB).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/16/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

LDL receptor (LDLR) is a cell surface glycoprotein that scavenges LDL from the blood and regulates plasma LDL levels.¹ It is composed of an N-terminal signal sequence, a ligand-binding domain, an EGF precursor homology domain, an O-linked glycosylation domain, a transmembrane region, and a C-terminal cytoplasmic tail. LDLR is primarily expressed in the liver but is also found in the adrenal cortex.² It mediates the endocytosis of LDL by binding to apolipoprotein E (ApoE) or ApoB on the LDL surface, thereby supplying cholesterol to cells.¹ Protein levels of LDLR are decreased in HepG2 cells expressing proprotein convertase subtilisin kexin 9 (PCSK9).³ Knockout of *Ldlr* increases plasma levels of cholesterol and triglycerides and induces the formation of atherosclerotic lesions in mice.⁴ Mutations in *LDLR* are associated with familial hypercholesterolemia.⁵ Cayman's LDL Receptor Polyclonal Antibody can be used for immunocytochemistry (ICC), immunohistochemistry (IHC), and Western blot (WB) applications.

References

1. Goldstein, J.L., Brown, M.S., Anderson, R.G.W., *et al.* Receptor-mediated endocytosis: Concepts emerging from the LDL receptor system. *Annu. Rev. Cell Biol.* **1**, 1-39 (1985).
2. Rudling, M.J., Reihner, E., Einarsson, K., *et al.* Low density lipoprotein receptor-binding activity in human tissues: Quantitative importance of hepatic receptors and evidence for regulation of their expression *in vivo*. *Proc. Natl. Acad. Sci. USA* **87(9)**, 3469-3473 (1990).
3. Benjannet, S., Rhainds, D., Essalmani, R., *et al.* NARC-1/PCSK9 and its natural mutants. Zymogen cleavage and effects on the low density lipoprotein (LDL) receptor and LDL cholesterol. *J. Biol. Chem.* **279(47)**, 48865-48875 (2004).
4. Praticò, D., Tillmann, C., Zhang, Z.B., *et al.* Acceleration of atherogenesis by COX-1-dependent prostanoid formation in low density lipoprotein receptor knockout mice. *Proc. Natl. Acad. Sci. USA* **98(6)**, 3358-3363 (2001).
5. Austin, M.A., Hutter, C.M., Zimmern, R.L., *et al.* Genetic causes of monogenic heterozygous familial hypercholesterolemia: A HuGE prevalence review. *Am. J. Epidemiol.* **160(5)**, 407-420 (2004).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM