

# PRODUCT INFORMATION

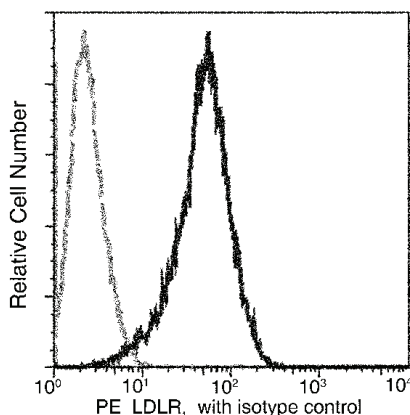
## LDL Receptor Rabbit Monoclonal Antibody (PE) (Clone 032)

Item No. 37078

### Overview and Properties

|                            |                                                                                                   |
|----------------------------|---------------------------------------------------------------------------------------------------|
| <b>Contents:</b>           | This vial contains 125 or 500 µl of protein A-affinity purified monoclonal antibody.              |
| <b>Synonyms:</b>           | LDLR, Low Density Lipoprotein Receptor                                                            |
| <b>Immunogen:</b>          | Recombinant mouse LDLR                                                                            |
| <b>Cross Reactivity:</b>   | (+) LDLR                                                                                          |
| <b>Species Reactivity:</b> | (+) Mouse                                                                                         |
| <b>Uniprot No.:</b>        | P35951                                                                                            |
| <b>Form:</b>               | Liquid                                                                                            |
| <b>Storage:</b>            | 2-8°C (as supplied)                                                                               |
| <b>Stability:</b>          | ≥1 year                                                                                           |
| <b>Storage Buffer:</b>     | PBS with 0.5% BSA and 0.03% ProClin™ 300                                                          |
| <b>Clone:</b>              | 032                                                                                               |
| <b>Host:</b>               | Rabbit                                                                                            |
| <b>Isotype:</b>            | IgG                                                                                               |
| <b>Applications:</b>       | Flow cytometry (FC); the optimal working concentration/dilution should be determined empirically. |

### Image



Profile of LDL Receptor Rabbit Monoclonal Antibody (PE) reactivity on Raw 246.7 cells analyzed by flow cytometry. Cells should be Fc-blocked prior to staining, washed, then stained with LDL Receptor Rabbit Monoclonal Antibody (PE) (Clone 032).

Flow cytometry was performed on a BD FACS Calibur flow cytometry system.

**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.

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## Description

LDL receptor (LDLR) is a cell surface glycoprotein that scavenges LDL from the blood and regulates plasma LDL levels.<sup>1</sup> 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.<sup>2</sup> It mediates the endocytosis of LDL by binding to apolipoprotein E (ApoE) or ApoB on the LDL surface, thereby supplying cholesterol to cells.<sup>1</sup> Protein levels of LDLR are decreased in HepG2 cells expressing proprotein convertase subtilisin kexin 9 (PCSK9).<sup>3</sup> Knockout of *Ldlr* increases plasma levels of cholesterol and triglycerides and induces the formation of atherosclerotic lesions in mice.<sup>5</sup> Mutations in *LDLR* are associated with familial hypercholesterolemia.<sup>4</sup> Cayman's LDL Receptor Rabbit Monoclonal Antibody (PE) is composed of an LDLR monoclonal antibody conjugated to phycoerythrin (PE) (Clone 032) and can be used for flow cytometry (FC).

## 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. 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).
5. 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).

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