

Product Information



LDL Receptor Blocking Peptide

Catalog No. 10007672

Cholesterol is an essential element of cell membranes and is carried around the body packaged in lipoproteins, mainly in low-density lipoproteins (LDLs). The LDL receptors (LDLR) are complex glycoproteins located on cell membranes to LDL from the blood and regulate plasma LDL cholesterol. LDLRs contain five primary domains: the ligand binding domain, the homology with the EGF precursor domain, the O-link sugars domain, the membrane-spanning region, and a cytoplasmic tail.¹ In humans, more than 60% of the LDLRs are found in the liver.² LDLR expression is under hormonal control both *in vivo* and *in vitro*. Mutations in the LDLR gene cause disorders such as familial hypercholesterolemia and atherosclerosis.¹

Laboratory Procedures

This vial contains 200 µg peptide in 200 µl TBS, pH 7.4, containing 0.1% BSA and 0.02% sodium azide. The LDL receptor blocking peptide (amino acids 499-511) can be used in conjunction with Cayman's LDL Receptor Polyclonal Antibody (Catalog No. 10007665) to block protein-antibody complex formation during immunochemical analysis of the LDL receptor.

Store this peptide solution at -20°C. It will be stable for at least two years. To block antibody/protein complex formation, the following procedure is recommended:

1. Mix the LDL Receptor Polyclonal Antibody (Catalog No. 10007665) and blocking peptide together in a 1:1 (v/v) ratio in a microfuge tube. For example, mix 40 µl of antibody and 40 µl of peptide.*
2. Incubate for 1 hour at room temperature with occasional mixing prior to further dilution and application of the mixture to the immunoblot.
3. Dilute the mixture to the final working antibody concentration and apply to the slide or membrane as usual.

*This is a recommended mixture. The minimum amount of peptide needed for complete blocking has not been precisely determined and may vary depending on the sample being analyzed. The amount of peptide required may need to be increased if sufficient blocking does not occur.

References

1. Goldstein, J.L., Brown, M.S., Anderson, R.G.W., *et al.* Receptor-mediated endocytosis: Concepts emerging from the LDL receptor system. *Ann. 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**, 3469-3473 (1990)

Related Product

LDL Receptor Polyclonal Antibody - Cat. No. 10007665

WARNING: THIS PRODUCT IS NOT FOR HUMAN OR ANIMAL DISEASE DIAGNOSIS OR THERAPEUTIC DRUG USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees. Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 02/26/2008

Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com