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HMGCR Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP6577c

Specification

HMGCR Antibody (Center) Blocking Peptide - Product Information

Primary Accession P04035

HMGCR Antibody (Center) Blocking Peptide - Additional Information

Gene ID 3156

Other Names
3-hydroxy-3-methylglutaryl-coenzyme A reductase, HMG-CoA reductase, HMGCR

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6577c was selected from the Center region of human HMGCR. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

HMGCR Antibody (Center) Blocking Peptide - Protein Information

Name HMGCR (HGNC:5006)

Function

HMGCR Antibody (Center) Blocking Peptide - Background

HMG-CoA reductase is the rate-limiting enzyme for cholesterol synthesis and is regulated via a negative feedback mechanism mediated by sterols and non-sterol metabolites derived from mevalonate, the product of the reaction catalyzed by reductase. Normally in mammalian cells this enzyme is suppressed by cholesterol derived from the internalization and degradation of low density lipoprotein (LDL) via the LDL receptor. Competitive inhibitors of the reductase induce the expression of LDL receptors in the liver, which in turn increases the catabolism of plasma LDL and lowers the plasma concentration of cholesterol, an important determinant of atherosclerosis.

HMGCR Antibody (Center) Blocking Peptide - References

Chen,Y.C., Lipids 44 (8), 733-743 (2009)

Catalyzes the conversion of (3S)-hydroxy-3-methylglutaryl-CoA (HMG-CoA) to mevalonic acid, the rate-limiting step in the synthesis of cholesterol and other isoprenoids, thus plays a critical role in cellular cholesterol homeostasis (PubMed:2991281, PubMed:21357570, PubMed:6995544). HMGCR is the main target of statins, a class of cholesterol-lowering drugs (PubMed:11349148, PubMed:18540668).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P00347}. Peroxisome membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P00347}

Tissue Location
[Isoform 1]: Ubiquitously expressed with the highest levels in the cerebellum, fetal brain, testis, skin and adrenal gland. [Isoform 3]: Low abundance except in skin, esophagus, and uterine cervix.

HMGCR Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides