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HMGCR Rabbit pAb

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Catalog # AP52077

Product Information

Application	WB
Primary Accession	P04035
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	97476
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HMGCR
Epitope Specificity	251-350/888
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Endoplasmic reticulum membrane. Peroxisome membrane.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq].

Additional Information

Gene ID	3156
Other Names	3-hydroxy-3-methylglutaryl-coenzyme A reductase, HMG-CoA reductase, 1.1.1.34, HMGCR (HGNC:5006)
Dilution	WB=1:1000-5000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	HMGCR (HGNC:5006)
Function	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:21357570, PubMed:2991281, PubMed:36745799, PubMed:6995544). HMGCR is the main target of statins, a class of cholesterol-lowering drugs (PubMed:11349148, PubMed:18540668, PubMed:36745799).
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.

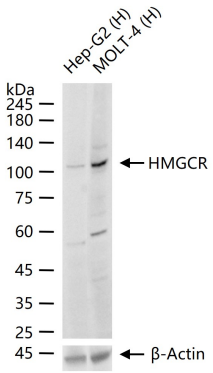
Background

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References

Luskey K.L.,et al.J. Biol. Chem. 260:10271-10277(1985).
Nakajima T.,et al.Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
Rieder M.J.,et al.Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Schmutz J.,et al.Nature 431:268-274(2004).

Images



25 ug total protein per lane of various lysates (see on figure) probed with HMGCR polyclonal antibody, unconjugated (AP52077) at 1:2000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.