

Anti-HMG CoA Reductase Antibody

Rabbit Polyclonal Antibody

Catalog # ABV12035

Product Information

Application	WB
Primary Accession	P04035
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	N/A
Calculated MW	97476

Additional Information

Gene ID	3156
Application & Usage	WB: Rat kidney lysate, HeLa, HepGe cell lysate, HMG CoA human recombinant
Other Names	3-Hydroxy-3-methylglutaryl-CoA reductase, HMGR, HMGCR
Target/Specificity	HMGCR
Antibody Form	Liquid
Appearance	Colorless liquid
Formulation	In PBS pH 7.2, containing 30% glycerol, 0.5% BSA, 5 mM EDTA and 0.03% proclin.
Handling	The antibody solution should be gently mixed before use.
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	Anti-HMG CoA Reductase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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}

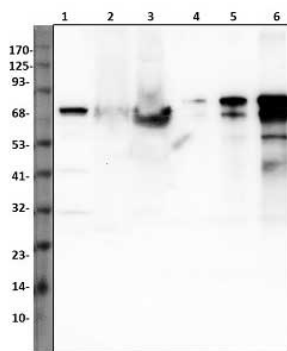
Tissue Location

[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

HMG-CoA reductase (3-hydroxy-3-methyl-glutaryl-CoA reductase or HMGR) (EC 1.1.1.34) is a transmembrane protein involved in the mevalonate pathway, the metabolic pathway that produces cholesterol from acetyl-CoA. In an NADPH-dependent reaction, HMG-CoA reductase reduces HMG-CoA to generate mevalonate and CoA. Since HMG-CoA reductase catalyzes the rate limiting step in cholesterol synthesis, it is a primary target of a group of cholesterol-lowering drugs known as statins. Inhibition of HMG-CoA reductase induces expression of LDL receptors in the liver, which lowers plasma concentration of cholesterol.

Images



Western blot of human HMG CoA antibody: Lane 1: Rat kidney lysate Lane 2: HeLa cell lysate Lane 3: HepG2 cell lysate Lane 4: HMG CoA reductase 2 ng Lane 5: HMG CoA reductase 10 ng Lane 6: HMG CoA reductase 50 ng

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