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CH25H Antibody (N-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22272a

Product Information

Application	WB, E
Primary Accession	O95992
Other Accession	Q4G1G8
Reactivity	Human, Mouse
Predicted	Pig
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB55304
Calculated MW	31745

Additional Information

Gene ID	9023
Other Names	Cholesterol 25-hydroxylase, 1.14.99.38, Cholesterol 25-monooxygenase, h25OH, CH25H
Target/Specificity	This CH25H antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 47-76 amino acids from human CH25H.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CH25H Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CH25H (HGNC:1907)
Function	Catalyzes the formation of 25-hydroxycholesterol from cholesterol, leading to repress cholesterol biosynthetic enzymes (PubMed:9852097). Plays a key role in cell positioning and movement in lymphoid tissues: 25-hydroxycholesterol is an intermediate in biosynthesis of

	7-alpha,25-dihydroxycholesterol (7-alpha,25-OHC), an oxysterol that acts as a ligand for the G protein-coupled receptor GPR183/EBI2, a chemotactic receptor for a number of lymphoid cells (By similarity). May play an important role in regulating lipid metabolism by synthesizing a corepressor that blocks sterol regulatory element binding protein (SREBP) processing (PubMed:9852097). As an interferon- stimulated gene, has broad antiviral activities against a wide range of enveloped viruses, such as vesicular stomatitis virus (VSV) and SARS coronavirus-2 (SARS-CoV-2). Its product, 25-hydroxycholesterol, activates the ER-localized enzyme ACAT to induce internalization of accessible cholesterol on the plasma membrane and restricts SARS-CoV-2 S protein-mediated fusion which inhibits virus replication (PubMed:32944968, PubMed:33239446). In testis, production of 25-hydroxycholesterol by macrophages plays a role in Leydig cell differentiation (By similarity). Required to restrain inflammation in macrophages: production of 25-hydroxycholesterol protects macrophages from cholesterol overload, thereby preventing mitochondrial DNA release and subsequent activation of the AIM2 inflammasome (By similarity).
Cellular Location	Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9Z0F5}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9Z0F5}

Background

Catalyzes the formation of 25-hydroxycholesterol from cholesterol, leading to repress cholesterol biosynthetic enzymes. May play an important role in regulating lipid metabolism by synthesizing a corepressor that blocks sterol regulatory element binding protein (SREBP) processing. In testis, production of 25- hydroxycholesterol by macrophages may play a role in Leydig cell differentiation.

References

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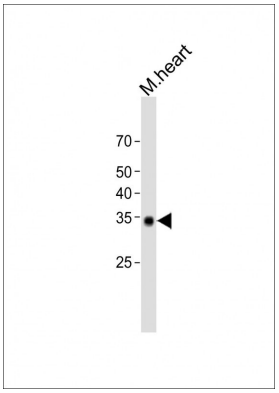
Images



All lanes: Anti-CH25H Antibody (N-Term) at 1:1000 dilution + Mouse heart lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 34 KDa Blocking/Dilution buffer: 5% NFDM/TBST.