

**Anti-CH25H (RABBIT) Antibody**  
**CH25H Antibody**  
**Catalog # ASR5760**

**Specification**

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**Anti-CH25H (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, IHC, E, I, LCI
Application Note	Anti-CH25H Antibody has been tested in ELISA, WB, and IHC. Expect a band at ~31.7kDa in western blot using appropriate tissues or lysates. Positive control used: Human Kidney Tissues in Immunohistochemistry.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	Anti-CH25H antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a C-Terminal region of human CH25H conjugated to Keyhole Limpet Hemocyanin (KLH).
Preservative	0.01% (w/v) Sodium Azide

**Anti-CH25H (RABBIT) Antibody - Additional Information**

**Gene ID** 9023

**Other Names**  
9023

**Purity**

This affinity purified antibody is directed against human CH25H. This product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross-reactivity with the antigen based on 100% homology with the immunizing sequence and 92% homology to pig, 91% homology to rat, and 75% homology to mouse.

**Storage Condition**

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

## Anti-CH25H (RABBIT) Antibody - Protein Information

Name CH25H ([HGNC:1907](#))

### Function

Catalyzes the formation of 25-hydroxycholesterol from cholesterol, leading to repress cholesterol biosynthetic enzymes (PubMed:[9852097](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/32944968), PubMed:[33239446](http://www.uniprot.org/citations/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

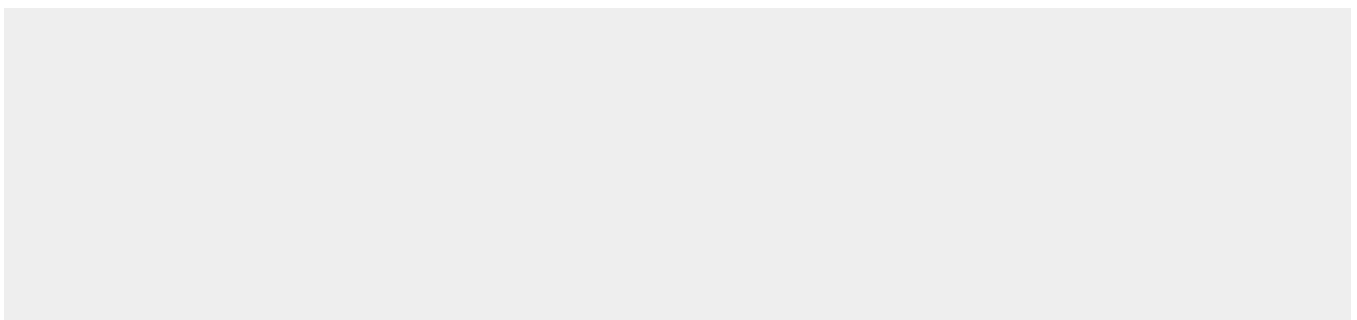
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9Z0F5}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9Z0F5}

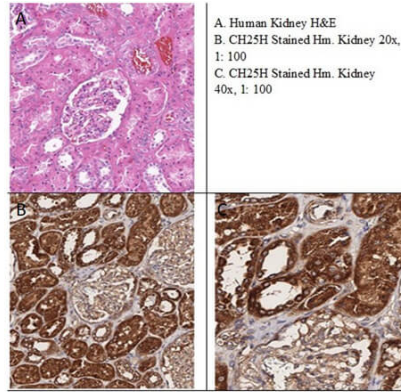
## Anti-CH25H (RABBIT) Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-CH25H (RABBIT) Antibody - Images





Immunohistochemistry of Rabbit Anti-CH25H Antibody. Tissue: Human Kidney. Fixative: None. Antigen Retrieval: HIER using Citrate Buffer for 20 minutes. Primary Antibody: Anti-CH25H at 1:100 for 30 min at RT. Secondary Antibody: Anti-Rabbit Poly-HRP IgG Ready-to-Use for 8 minutes at RT. Counterstain: Hematoxylin. Substrate: DAB. Staining: (A) Negative control. (B) 20X. (C) 40X. Results: Shows strong cytoplasmic staining of renal tubular epithelium.

### **Anti-CH25H (RABBIT) Antibody - Background**

CH25H (Cholesterol 25-Hydroxylase catalyzes the formation of 25-hydroxycholesterol from cholesterol, leading to repress cholesterol biosynthetic enzymes. CH25H 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 several lymphoid cells. It 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. Anti-CH25H Antibody is useful for researchers interested in Alzheimer's Disease, Neuroscience, and metabolism.