

# Datasheet for ABIN7553428

# CH25H Protein (AA 1-272) (His tag)



#### Overview

Characteristics:

| Quantity:                     | 1 mg  |
|-------------------------------|---|
| Target:                       | CH25H   |
| Protein Characteristics:      | AA 1-272  |
| Origin:                       | Human   |
| Source:                       | HEK-293 Cells   |
| Protein Type:                 | Recombinant   |
| Purification tag / Conjugate: | This CH25H protein is labelled with His tag.  |
| Application:                  | Western Blotting (WB), SDS-PAGE (SDS)   |
| Product Details               |   |
| Purpose:                      | Custom-made recombinat CH25H Protein expressed in mammalien cells.                          |
| Sequence:                     | MSCHNCSDPQ VLCSSGQLFL QPLWDHLRSW EALLQSPFFP VIFSITTYVG FCLPFVVLDI                           |
|                               | LCSWVPALRR YKIHPDFSPS AQQLLPCLGQ TLYQHVMFVF PVTLLHWARS PALLPHEAPE                           |
|                               | LLLLHHILF CLLLFDMEFF VWHLLHHKVP WLYRTFHKVH HQNSSSFALA TQYMSVWELF                            |
|                               | SLGFFDMMNV TLLGCHPLTT LTFHVVNIWL SVEDHSGYNF PWSTHRLVPF GWYGGVVHHD                           |
|                               | LHHSHFNCNF APYFTHWDKI LGTLRTASVP AR Sequence without tag. The proposed                      |
|                               | Purification-Tag is based on experiences with the expression system, a different complexity |

contact us.

Key Benefits:

of the protein could make another tag necessary. In case you have a special request, please

• Made to order protein - from design to production - by highly experienced protein experts.

- · Protein expressed in mammalien cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

Grade:

custom-made

### **Target Details**

Target: CH25H

Alternative Name: CH25H (CH25H Products)

Background:

Cholesterol 25-hydroxylase (EC 1.14.99.38) (Cholesterol 25-monooxygenase) (h250H),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:33239446, PubMed:32944968). In testis, production of 25-hydroxycholesterol by macrophages plays a role in Leydig cell differentiation (By similarity). Required to restrain

## **Target Details**

|                     | 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). {ECO:0000250 UniProtKB:Q4QQV7,    |
|                     | ECO:0000250 UniProtKB:Q9Z0F5, ECO:0000269 PubMed:32944968,                             |
|                     | ECO:0000269 PubMed:33239446, ECO:0000269 PubMed:9852097}.                              |
| Molecular Weight:   | 31.7 kDa   |
| UniProt:            | 095992   |
|                     |  |
| Application Details |  |

| Application Notes: | In addition to the applications listed above we expect the protein to work for functional studies |
|--------------------|---|
|                    | as well. As the protein has not been tested for functional studies yet we cannot offer a          |
|                    | guarantee though.   |
| Restrictions:      | For Research Use only   |

## Handling

| Format:          | Liquid   |
|------------------|--|
| Buffer:          | The buffer composition is at the discretion of the manufacturer. |
| Handling Advice: | Avoid repeated freeze-thaw cycles.                               |
| Storage:         | -80 °C   |
| Storage Comment: | Store at -80°C.  |
| Expiry Date:     | 12 months  |