

Recombinant Human IFM2 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50454

Size: 10ug, 100ug

Protein Name: Interferon-induced transmembrane protein 2 (Dispanin subfamily A member 2c) (DSPA2c) (Interferon-inducible protein 1-8D)

Synonym: IFITM2

UniProt ID: Q01629

UniProt Link: www.uniprot.org/uniprotkb/Q01629/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 132 AA

Molecular Weight: 15 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MNHIVQTFSPVNSGQPPNYEMLKEEQEVAMLGVPHNPAPPMSTVIHIRSETSVDPDHVVWSLFNTLF
MNTCCLGFIAFAYSVKSRDRKMVGDTVGAQAYASTAKCLNIWALILGIFMTILLIIPVLVVQAQR

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Interferon-induced transmembrane protein 2 (Dispanin subfamily A member 2c) (DSPA2c) (Interferon-inducible protein 1-8D) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: IFN-induced antiviral protein which inhibits the entry of viruses to the host cell cytoplasm, permitting endocytosis, but preventing subsequent viral fusion and release of viral contents into the cytosol (PubMed:26354436, PubMed:33563656). Active against multiple viruses, including influenza A virus, SARS coronaviruses (SARS-CoV and SARS-CoV-2), Marburg virus (MARV), Ebola virus (EBOV), Dengue virus (DNV), West Nile virus (WNV), human immunodeficiency virus type 1 (HIV-1), hepatitis C virus (HCV) and vesicular stomatitis virus (VSV) (PubMed:26354436, PubMed:33239446, PubMed:33270927, PubMed:33563656). Can inhibit: influenza virus hemagglutinin protein-mediated viral entry, MARV and EBOV GP1,2-mediated viral entry, SARS-CoV and SARS-CoV-2 S protein-mediated viral entry and VSV G protein-mediated viral entry (PubMed:33563656). Induces cell cycle arrest and mediates apoptosis by caspase activation and in p53-independent manner. In hepatocytes, IFITM proteins act in a coordinated manner to restrict HCV infection by targeting the endocytosed HCV virion for lysosomal degradation (PubMed:26354436). IFITM2 and IFITM3 display anti-HCV activity that may complement the anti-HCV activity of IFITM1 by inhibiting the late stages of HCV entry, possibly in a coordinated manner by trapping the virion in the endosomal pathway and targeting it for degradation at the lysosome (PubMed:26354436).

Subcellular Localization: Cell membrane ; Single-pass type II membrane protein . Lysosome membrane ; Single-pass type II membrane protein . Late endosome membrane ; Single-pass type II membrane protein .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.