

Recombinant Human IFIT5 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50452

Size: 10ug, 100ug

Protein Name: Interferon-induced protein with tetratricopeptide repeats 5 (IFIT-5) (Interferon-induced 58 kDa protein) (Retinoic acid- and interferon-inducible 58 kDa protein) (P58)

Synonym: IFIT5, ISG58, RI58

UniProt ID: Q13325

UniProt Link: www.uniprot.org/uniprotkb/Q13325/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 482 AA

Molecular Weight: 56 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSEIRKDTLKAILLELECHFTWNLLKEDIDLFEVEDTIGQQLEFLTTSRLALYNLLAYVKHLKGQNKD
ALECLEQAEEIIQQEHSDKEEVRLVTWGNyawvyyHMDQLEEAQKYTGKIGNVCKKLSSPSNYKL
ECPETDCEKGWALLKFGGKYQKAKAAFEKALEVEPDNPEFNIGYAITVYRLDDSDREGSVKSFSLG
PLRKAVTLNPDNSYIKVFLALKLQDVHAAEAGEKYIEEILDQISSQPYVLRYAAKFYRRKNSWKNKALEL
LKKALEVTPTSSFLHHQMGLCYRAQMIQIKKATHNRPKGKDKLVDELISSAIFHFKAAMERDSMFAF
AYTDLANMYAEGGQYSNAEDIFRKALRLENITDDHKHQIHYYHYGRFQEFHRKSENTAIHHYLEALKVK
DRSPLRTKLTSALKKLSTKRLCHNALDVQSLSALGFVYKLEGEKRQAAEYYEKAQKIDPENAEFLTAL
CELRLSI

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 protein with tetratricopeptide repeats 5 (IFIT-5) (Interferon-induced 58 kDa protein) (Retinoic acid- and interferon-inducible 58 kDa protein) (P58) 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: Interferon-induced RNA-binding protein involved in the human innate immune response. Has a broad and adaptable RNA structure recognition important for RNA recognition specificity in antiviral defense. Binds precursor and processed tRNAs as well as poly-U-tailed tRNA fragments (PubMed:23317505, PubMed:23774268, PubMed:25092312). Specifically binds single-stranded RNA bearing a 5'-triphosphate group (PPP-RNA), thereby acting as a sensor of viral single-stranded RNAs. Single-stranded PPP-RNAs, which lack 2'-O-methylation of the 5' cap and bear a 5'-triphosphate group instead, are specific from viruses, providing a molecular signature to distinguish between self and non-self mRNAs by the host during viral infection. Directly binds PPP-RNA in a non-sequence-specific manner (PubMed:23334420). Also recognizes and selectively binds AT-rich dsDNA (PubMed:23774268). Additionally, as a mediator in innate immunity, positively regulates IKK-NFκB signaling by synergizing the recruitment of IKK to MAP3K7 (PubMed:26334375).

Subcellular Localization: Cell projection, ruffle membrane. Note=Colocalized with RIGI at cell surface ruffles. Localizes to actin-rich protrusions from the apical cell surface.

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.