

Recombinant Human IRF8 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50571

Size: 10ug, 100ug

Protein Name: Interferon regulatory factor 8 (IRF-8) (Interferon consensus sequence-binding protein) (H-ICSBP) (ICSBP)

Synonym: IRF8, ICSBP1

UniProt ID: Q02556

UniProt Link: www.uniprot.org/uniprotkb/Q02556/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 426 AA

Molecular Weight: 48 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MCDRNGGRRLRQWLIEQIDSSMYPGLIWENEEKSMFRIPWKHAGKQDYNQEVDASIFKAWAVFKG
KFKEGDKAEPATWKTRLRCALNKSPDFEEVTDRSQLDISEPYKVYRIVPEEEQKCKLGVATAGCVNE
VTEMECGRSEIDELIKEPSVDDYMGMIKRSPSPPEACRSQLLPDWWAQQPSTGVPLVTGYTTYDAH
HSAFSQMVISFYGGKLVGQATTTCEGCRLSLSQPGLPGTKLYGPEGLELVRFPADAIIPSERQRQ
VTRKLFGHLERGVLLHSSRQGVFVKRLCQGRVFCSGNAVVCCKGRPNKLERDEVVQVFDTSQFFRE
LQQFYNSQGRLPDGRVVLFCGEEFPDMAPLRSKLILVQIEQLYVRQLAEEAGKSCGAGSVMQAPPEE
PPPDQVFRMFDPICASHQRSFFRENQQITV

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 regulatory factor 8 (IRF-8) (Interferon consensus sequence-binding protein) (H-ICSBP) (ICSBP) 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: Transcription factor that specifically binds to the upstream regulatory region of type I interferon (IFN) and IFN-inducible MHC class I genes (the interferon consensus sequence (ICS)) (PubMed:25122610). Can both act as a transcriptional activator or repressor (By similarity). Plays a negative regulatory role in cells of the immune system (By similarity). Involved in CD8(+) dendritic cell differentiation by forming a complex with the BATF-JUNB heterodimer in immune cells, leading to recognition of AICE sequence (5'-TGAnTCA/GAAA-3'), an immune-specific regulatory element, followed by cooperative binding of BATF and IRF8 and activation of genes (By similarity). Required for the development of plasmacytoid dendritic cells (pDCs), which produce most of the type I IFN in response to viral infection (By similarity). Positively regulates macroautophagy in dendritic cells (PubMed:29434592). Acts as a transcriptional repressor of osteoclast differentiation factors such as NFATC1 and EEIG1 (By similarity).

Subcellular Localization: Nucleus . Cytoplasm . Note=In resting macrophages, localizes in the cytoplasm. Translocated in the nucleus upon IFN-gamma induction.

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.