

Recombinant Mouse IRF8 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51333

Size: 10ug, 100ug

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

Synonym: Irf8, Icsbp, Icsbp1

UniProt ID: P23611

UniProt Link: www.uniprot.org/uniprotkb/P23611/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 424 AA

Molecular Weight: 48 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MCDRNGGRRLRQWLIEQIDSSMYPGLIWENDEKTMFRIPWKHAGKQDYNQEVDASIFKAWAVFKG
KFKEGDKAEPATWKTRLRCALNKSPDFEEVTDRSQLDISEPYKVYRIVPEEEQKCKLGVAPAGCMS
EVPMEECGRSEIEELIKEPSVDEYMGMTKRSPSPPEACRSQILPDWWVQQPSAGLPLVTGYAAYDT
HHSAFSQMVISFYGGKLVGQATTTCLEGCRLSLSQPGLPKLYGPDGLEPVCFTADTIPSERQRQV
TRKLFGHLERGVLLHSNRKGVFVKRLCQGRVFCSGNAVVCCKGRPNKLERDEVVQVFDTNQFIRELQ
QFYATQSRLPDSRVVLCFGEEFPDTPVPLRSKLILVQVEQLYARQLVEEAGKSCGAGSLMPALEEPQP
DQAFRMFPDICTSHQRPFFRENQQITV

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) (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:12393690, PubMed:2111015). Can both act as a transcriptional activator or repressor (PubMed:2111015). Plays a negative regulatory role in cells of the immune system (PubMed:2111015). 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 (PubMed:12393690, PubMed:22992524). Required for the development of plasmacytoid dendritic cells (pDCs), which produce most of the type I IFN in response to viral infection (PubMed:12393690, PubMed:12461077, PubMed:12538667, PubMed:23382217). Positively regulates macroautophagy in dendritic cells (By similarity). Acts as a transcriptional repressor of osteoclast differentiation factors such as NFATC1 and EEIG1 (PubMed:32741026).

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.