

Recombinant Mouse RELB Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51563

Size: 10ug, 100ug

Protein Name: Transcription factor RelB

Synonym: Relb

UniProt ID: Q04863

UniProt Link: www.uniprot.org/uniprotkb/Q04863/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 558 AA

Molecular Weight: 60 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MPSRRAARESAPELGALGSSDLSSLTVSRTTDELEIIDEYIKENGFGLDGTQLSEMPRLVPRGPAS
LSSVTLGPAAPPPATPSWCTLGRLVSPGPCPRPYLVITEQPKQGRGMRFRYECEGRSAGSILGES
STEASKTLPAIELRDCGGLREVEVTACLWWDWPHRVHPSLVGKDCTDGVCVRVLRPHVSPRHSF
NNLGIQCVRKKEIEAAIERKIQLGIDPYNAGSLKNHQEVDNMNVVRICFQASYRDQQGHLHRMDPILSE
PVYDKKSTNTSELRICRINKESGPCTGGEELYLLCDKVQKEDISVVFSTASWEGRADFSQADVHRQI
AIVFKTPPYEDLEISEPVTNVFLQRLTDGVCSEPLPFTYLPRDHDSYGVDKKRKRGLPDVLGELSSS
DPHGIESKRKKKPVFLDHFLPGHSSGLFLPPSALQPADSDFFPASISLPGLEPPGGPDLLDDGFAY
DPSAPTLFTMLDLLPPAPPLASAVVGSGGAGATVVESSGPEPLSLDSFAAPGPGDVG TASLVGSNM
FPNQYREAAFGGGLLSPGPEAT

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 Transcription factor RelB 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: NF-kappa-B is a pleiotropic transcription factor which is present in almost all cell types and is involved in many biological processes such as inflammation, immunity, differentiation, cell growth, tumorigenesis and apoptosis. NF-kappa-B is a homo- or heterodimeric complex formed by the Rel-like domain-containing proteins RELA/p65, RELB, NFKB1/p105, NFKB1/p50, REL and NFKB2/p52. The dimers bind at kappa-B sites in the DNA of their target genes and the individual dimers have distinct preferences for different kappa-B sites that they can bind with distinguishable affinity and specificity. Different dimer combinations act as transcriptional activators or repressors, respectively. NF-kappa-B is controlled by various mechanisms of post-translational modification and subcellular compartmentalization as well as by interactions with other cofactors or corepressors. NF-kappa-B complexes are held in the cytoplasm in an inactive state complexed with members of the NF-kappa-B inhibitor (I-kappa-B) family. In a conventional activation pathway, I-kappa-B is phosphorylated by I-kappa-B kinases (IKKs) in response to different activators, subsequently degraded thus liberating the active NF-kappa-B complex which translocates to the nucleus. NF-kappa-B heterodimeric RelB-p50 and RelB-p52 complexes are transcriptional activators. RELB neither associates with DNA nor with RELA/p65 or REL. Stimulates promoter activity in the presence of NFKB2/p49 (By similarity). As a member of the NUPR1/RELB/IER3 survival pathway, may allow the development of pancreatic intraepithelial neoplasias. Regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-BMAL1 heterodimer in a CRY1/CRY2 independent manner. Increased repression of the heterodimer is seen in the presence of NFKB2/p52. Is required for both T and B lymphocyte maturation and function (By similarity).

Subcellular Localization: Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Note=Colocalizes with NEK6 in the centrosome.

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.