

## Product datasheet for **SC122747**

### Rel B (RELB) (NM\_006509) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rel B (RELB) (NM_006509) Human Untagged Clone
Tag:	Tag Free
Symbol:	Rel B
Synonyms:	I-REL; IMD53; IREL; REL-B
Mammalian Cell Selection:	Neomycin
Vector:	<u>PCMV6-Neo</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_006509, the custom clone sequence may differ by one or more nucleotides

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ATGCTTCGGTCTGGGCCAGCCTCTGGGCCGTCCTGCCACTGGCCGGGCCATGCCGAGTCGCCGCGTCCG
CCAGACC GCCGGCTGCGCCGAGCTGGGGCCTTAGGGTCCCCGACCTCTCTCACTCTCGCTCGCCGT
TTCCAGGAGCACAGATGAATTGGAGATCATCGACGAGTACATCAAGGAGAACGGCTTCGGCCTGGACGGG
GGACAGCCGGGCCGGGGGAGGGGCTGCCACGCCCTGGTGTCTCGCGGGGCTGCGTCCCTGAGCACGGTCA
CCCTGGGCCCTGTGGCGCCCCAGCCACGCCGCCCTTGGGGCTGCCCCCTGGGCCGACTAGTGTCCCC
AGCGCCGGGCCGGGCCCGCAGCCGACCTGGTATCACGGAGCAGCCCAAGCAGCGCGGCATGCGCTTC
CGCTACGAGTGCAGGGCCGCTCGGCCGCGAGCATCCTTGGGGAGAGCAGCACCAGGCCAGCAAGACGC
TGCCCGCCATCGAGCTCCGGGATTGTGGAGGGCTGCGGGAGGTGGAGGTGACTGCCTGCCTGGTGTGAA
GGACTGGCCTCACCGAGTCCACCCACAGCCTCGTGGGAAAGACTGCACCGACGGCATCTGCAGGGTG
CGGCTCCGGCCTACGTACGCCCCGGCACAGTTTTAACAACTGGGCATCCAGTGTGTGAGGAAGAAGG
AGATTGAGGCTGCCATTGAGCGAAGATTCAACTGGGCATTGACCCTACAACGCTGGGTCCCTGAAGAA
CCATCAGGAAGTAGACATGAATGTGGTGAAGATCTGCTTCCAGGCCTCATATCGGACCAGCAGGGACAG
ATGCGCCGGATGGATCCTGTGCTTCCGAGCCGTCATGACAAGAAATCCACAAACACATCAGAGCTGC
GGATTTGCCGAATTAACAAGAAAGCGGGCCGTGCACCGTGGCGAGGAGCTCTACTTGCTGCGACAA
GGTGCAGAAAGAGGACATATCAGTGGTGTTCAGCAGGGCCTCCTGGGAAGGTCCGGCTGACTTCTCCAG
GCCGACGTGCACCGCCAGATTGCCATTGTGTTCAGACGCCGCCCTACGAGGACCTGGAGATTGTCGAGC
CCGTGACAGTCAACGTCTTCTGCAGCGGCTCACCGATGGGGTCTGCAGCGAGCCATTGCCTTTCACGTA
CCTGCCTCGCGACCATGACAGCTACGGCGTGGACAAGAAGCGGAAACGGGGGATGCCCGACGTCTTGGG
GAGCTGAACAGCTCTGACCCCATGGCATCGAGAGCAAACGGCGGAAGAAAAAGCCGGCCATCCTGGACC
ACTTCCTGCCCAACCACGGCTCAGGCCCGTTCTCCCGCGCTCAGCCCTGCTGCCAGACCCTGACTTCTT
CTCTGGCACCGTGTCCCTGCCCGCCTGGAGCCCTGGCGGGCCTGACCTCCTGGACGATGGCTTTGCC
TACGACCTACGGCCCCACACTCTTACCATGCTGGACCTGCTGCCCCGGCACCGCCACACGCTAGCG
CTGTTGTGTGCAGCGGAGGTGCCGGGCCGTGGTTGGGGAGACCCCGGCCCTGAACCACTGACACTGGA
CTCGTACCAGGCCCGGGCCCGGGGATGGAGGCACCGCCAGCCTTGTGGGCAGCAACATGTTCCCAAT
CATTACCGCGAGGCGGCCTTTGGGGCGGCCTCTATCCCGGGGCTGAAGCCACGTAG
    
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- Restriction Sites:** Please inquire
- ACCN:** NM\_006509
- Insert Size:** 2248 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
  5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM\\_006509.2](#), [NP\\_006500.2](#)

RefSeq Size: 2287 bp

RefSeq ORF: 1740 bp

Locus ID: 5971

UniProt ID: [Q01201](#)

Cytogenetics: 19q13.32

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: MAPK signaling pathway

**Gene Summary:** 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. As a member of the NUPR1/RELB/IER3 survival pathway, may provide pancreatic ductal adenocarcinoma with remarkable resistance to cell stress, such as starvation or gemcitabine treatment. Regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-ARNTL/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 (PubMed:26385063).[UniProtKB/Swiss-Prot Function]