

## Product datasheet for **RC207006**

### Rel B (RELB) (NM\_006509) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rel B (RELB) (NM_006509) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rel B
Synonyms:	I-REL; IMD53; IREL; REL-B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC207006 representing NM\_006509  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTTCGGTCTGGGCCAGCCTCTGGGCGTCCGTCGCCACTGGCCGGCCATGCCGAGTCGCCGCTGC  
 CCAGACCGCCGGCTGCGCCGAGCTGGGGCCTTAGGGTCCCCGACCTCTCCTACTCTCGCTCGCCGT  
 TTCCAGGAGCACAGATGAATTGGAGATCATCGACGAGTACATCAAGGAGAACGGCTTCGGCTGGACGGG  
 GGACAGCCGGGCCGGGCGAGGGGCTGCCACGCCTGGTGTCTCGCGGGGCTGCGTCCCTGAGCACGGTCA  
 CCCTGGGCCCTGTGGCGCCCCAGCCACGCCGCCCTTGGGGCTGCCCCCTGGGCCGACTAGTGTCCCC  
 AGCGCCGGGCCGGGCCGAGCCGACCTGGTTCATCACGGAGCAGCCAAAGCAGCGCGGCATGCGCTTC  
 CGTACGAGTGCAGGGCCGCTCGGCCGCGAGTCCCTGGGGAGAGCAGCACCGAGGCCAGCAAGACGC  
 TGCCCCCATCGAGTCCGGGATTGTGGAGGGTGCAGGGAGTGGAGGTACTGCCTGCCTGGTGTGGAA  
 GGACTGGCCTCACCGAGTCCACCCACAGCCTCGTGGGAAAGACTGCACCGACGGCATCTGCAGGGTG  
 CGCTCCGGCCTCACGTACGCCCGGCACAGTTTAAACAACCTGGGCATCCAGTGTGTAGGAAGAAGG  
 AGATTGAGGCTGCCATTGAGCGGAAGATTCAACTGGGCATTGACCCCTACAACGCTGGGTCCCTGAAGAA  
 CCATCAGGAAGTAGACATGAATGTGGTGGAGATCTGCTCCAGGCCTCATATCGGGACCAGCAGGGACAG  
 ATGCGCCGGATGGATCCTGTGCTTCCGAGCCCGTCTATGACAAGAAATCCACAAACACATCAGAGCTGC  
 GGATTTGCCGAATTAACAAGGAAAGCGGCCGTGCACCGGTGGCGAGGAGCTCTACTTGTCTGCGACAA  
 GGTGCAGAAAGAGGACATATCAGTGGTGTTCAGCAGGGCCTCCTGGGAAGTTCGGCTGACTTCTCCAG  
 GCCGAGTGCACCGCCAGATTGCCATTGTGTTCAAGACGCCGCCCTACGAGGACCTGGAGATTGTCGAGC  
 CCGTGACAGTCAACGTCTTCTCGACGGCTCACCGATGGGGTCTGCAGCGAGCCATTGCCTTTCAGTA  
 CCTGCCTCGCGACCATGACAGTACGGCGTGGACAAGAAGCGGAAACGGGGATGCCCGACGTCCTTGGG  
 GAGCTGAACAGCTCTGACCCCCATGGCATCGAGAGCAAACGGCGGAAGAAAAAGCCGGCCATCCTGGACC  
 ACTTCTGCCAACACGGCTCAGGCCCGTTTCTCCCGCGTTCAGCCCTGCTGCCAGACCCTGACTTCTT  
 CTCTGGCACCGTGTCCCTGCCCGCCCTGGAGCCCCCTGGCGGGCCTGACCTCCTGGACGATGGCTTTGCC  
 TACGACCTACGGCCCCACACTTTCACCATGCTGGACTGCTGCCCGCCGACCGCCACACGCTAGCG  
 CTGTTGTGTGCAGCGGAGGTGCCGGGCCGTGGTGGGGAGACCCCGGCCCTGAACCACTGACACTGGA  
 CTCGTACCAGGCCCGGGCCCGGGGATGGAGGCACCGCCAGCCTTGTGGGCAGCAACATGTTCCCAAT  
 CATTACCGCGAGCGGCCTTTGGGGCGGCCTCCTATCCCGGGCCTGAAGCCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC207006 representing NM\_006509  
 Red=Cloning site Green=Tags(s)

MLRSGPASGPSVPTGRAMPSRRVARPPAAPELGALGSPDLSSLAVSRSTDELEIIDEYIKENGFGLDG  
 GQPGPGEGLPRLVSRGAASLSTVTLGPVAPPATPPPWGCPLGRLVSPAPGPGPQPHLVITEQPKQRGMRF  
 RYECEGRSAGSILGESSTEASKTLPAIELRDCGGLREVEVTAQLVWKDWPVRVPHSLVGDCTDGI CRV  
 RLRPHVSPRHSFNNLGIQVVRKKEIEAAIERKIQLGIDPYNAGSLKNHQEVDMMNVVRI CFQASYRDQQGQ  
 MRRMDPVLSEPVYDKKSTNTSELRICRINKESGPCTGGEELYLLCDKVQKEDISVVF SRASWEGRADFSQ  
 ADVHRQIAIVFKTPPYEDLEIVEPVTVNVFLQRLTDGVCSELPFTYLPRDHDSYGVDKRKRGMPPDLG  
 ELNSSDPHGIESKRRKKKPAILDHFLPNHGSGPFLPPSALLPDPDFFSGTVSLPGLPEPPGGPDLDDGFA  
 YDPTAPTLFTMLDLLPPAPPHASAVVCSGGAGAVVGETPGPEPLTDSYQAPGPGDGGTASLVGSNMFPN  
 HYREAAFGGLLSPGPEAT

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg3135\\_g01.zip](https://cdn.origene.com/chromatograms/mg3135_g01.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_006509

**ORF Size:** 1737 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_006509.4](#)

**RefSeq Size:** 2287 bp

**RefSeq ORF:** 1740 bp

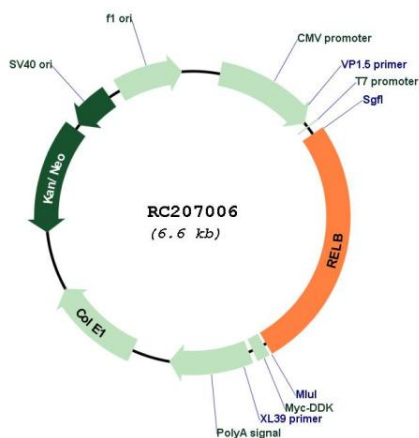
**Locus ID:** 5971

**UniProt ID:** [Q01201](#)

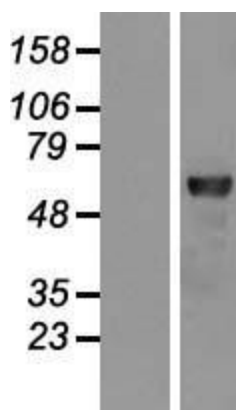
**Cytogenetics:** 19q13.32

<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Protein Pathways:</b>	MAPK signaling pathway
<b>MW:</b>	62 kDa
<b>Gene Summary:</b>	<p>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]</p>

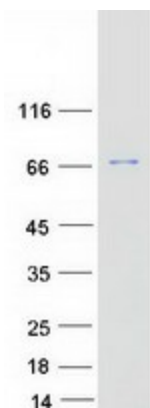
### Product images:



Circular map for RC207006



Western blot validation of overexpression lysate (Cat# [LY416597]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207006 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RELB protein (Cat# [TP307006]). The protein was produced from HEK293T cells transfected with RELB cDNA clone (Cat# RC207006) using MegaTran 2.0 (Cat# [TT210002]).