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Product datasheet for RG207006

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:	TurboGFP
Symbol:	Rel B
Synonyms:	I-REL; IMD53; IREL; REL-B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>RG207006 representing NM_006509
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTTCGGTCTGGGCCAGCCTCTGGGCCGTCCGTCCCCACTGGCCGGGCCATGCCGAGTCGCCGCGTCG
CCAGACCGCCGGCTGCGCCGGAGCTGGGGGCCTTAGGGTCCCCCGACCTCTCCTCACTCTCGCTCGCCGT
TTCCAGGAGCACAGATGAATTGGAGATCATCGACGAGTACATCAAGGAGAACGGCTTCGGCCTGGACGGG
GGACAGCCGGGCCCGGGCGAGGGGCTGCCACGCCTGGTGTCTCGCGGGGCTGCGTCCCTGAGCACGGTCA
CCCTGGGCCCTGTGGCGCCCCCAGCCACGCCGCCGCCTTGGGGCTGCCCCCTGGGCCGACTAGTGTCCCC
AGCGCCGGGCCCGGGCCCGCAGCCGCACCTGGTCATCACGGAGCAGCCCAAGCAGCGCGGCATGCGCTTC
CGCTACGAGTGCGAGGGCCGCTCGGCCGGCAGCATCCTTGGGGAGAGCAGCACCGAGGCCAGCAAGACGC
TGCCCGCCATCGAGCTCCGGGATTGTGGAGGGCTGCGGGAGGTGGAGGTGACTGCCTGCCTGGTGTGGAA
GGACTGGCCTCACCGAGTCCACCCCCACAGCCTCGTGGGGAAAGACTGCACCGACGGCATCTGCAGGGTG
CGGCTCCGGCCTCACGTCAGCCCCCGGCACAGTTTTAACAACCTGGGCATCCAGTGTGTGAGGAAGAAGG
AGATTGAGGCTGCCATTGAGCGGAAGATTCAACTGGGCATTGACCCCTACAACGCTGGGTCCCTGAAGAA
CCATCAGGAAGTAGACATGAATGTGGTGAGGATCTGCTTCCAGGCCTCATATCGGGACCAGCAGGGACAG
ATGCGCCGGATGGATCCTGTGCTTTCCGAGCCCGTCTATGACAAGAAATCCACAAACACATCAGAGCTGC
GGATTTGCCGAATTAACAAGGAAAGCGGGCCGTGCACCGGTGGCGAGGAGCTCTACTTGCTCTGCGACAA
GGTGCAGAAAGAGGACATATCAGTGGTGTTCAGCAGGGCCTCCTGGGAAGGTCGGGCTGACTTCTCCCAG
GCCGACGTGCACCGCCAGATTGCCATTGTGTTCAAGACGCCGCCCTACGAGGACCTGGAGATTGTCGAGC
CCGTGACAGTCAACGTCTTCCTGCAGCGGCTCACCGATGGGGTCTGCAGCGAGCCATTGCCTTTCACGTA
CCTGCCTCGCGACCATGACAGCTACGGCGTGGACAAGAAGCGGAAACGGGGGATGCCCGACGTCCTTGGG
GAGCTGAACAGCTCTGACCCCCATGGCATCGAGAGCAAACGGCGGAAGAAAAAGCCGGCCATCCTGGACC
ACTTCCTGCCCAACCACGGCTCAGGCCCGTTCCTCCCGCCGTCAGCCCTGCTGCCAGACCCTGACTTCTT
CTCTGGCACCGTGTCCCTGCCCGGCCTGGAGCCCCCTGGCGGGCCTGACCTCCTGGACGATGGCTTTGCC
TACGACCCTACGGCCCCCACACTCTTCACCATGCTGGACCTGCTGCCCCCGGCACCGCCACACGCTAGCG
CTGTTGTGTGCAGCGGAGGTGCCGGGGCCGTGGTTGGGGAGACCCCCGGCCCTGAACCACTGACACTGGA
CTCGTACCAGGCCCCGGGCCCCGGGGATGGAGGCACCGCCAGCCTTGTGGGCAGCAACATGTTCCCCAAT
CATTACCGCGAGGCGGCCTTTGGGGGCGGCCTCCTATCCCCGGGGCCTGAAGCCACG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

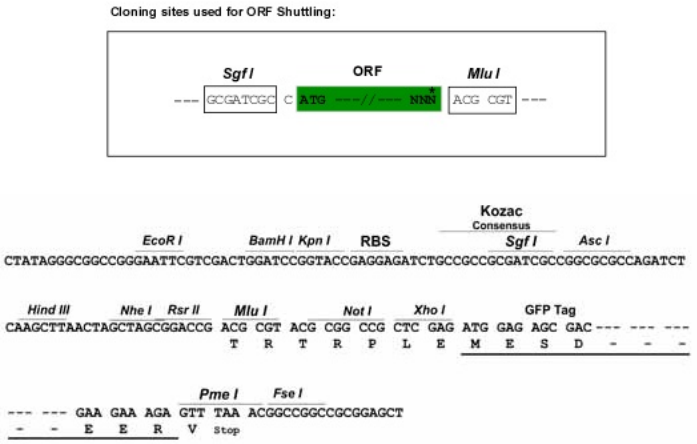
>RG207006 representing NM_006509
Red=Cloning site Green=Tags(s)

MLRSGPASGPSVPTGRAMPSRRVARPPAAPELGALGSPDLSSLSLAVSRSTDELEIIDEYIKENGFGLDG
GQPGPGEGLPRLVSRGAASLSTVTLGPVAPPATPPPWGCPLGRLVSPAPGPGPQPHLVITEQPKQRGMRF
RYECEGRSAGSILGESSTEASKTLPAIELRDCGGLREVEVTACLVWKDWPHRVHPHSLVGKDCTDGICRV
RLRPHVSPRHSFNNLGIQCVRKKEIEAAIERKIQLGIDPYNAGSLKNHQEVDMNVVRICFQASYRDQQGQ
MRRMDPVLSEPVYDKKSTNTSELRICRINKESGPCTGGEELYLLCDKVQKEDISVVFSRASWEGRADFSQ
ADVHRQIAIVFKTPPYEDLEIVEPVTVNVFLQRLTDGVCSEPLPFTYLPRDHDSYGVDKKRKRGMPDVLG
ELNSSDPHGIESKRRKKKPAILDHFLPNHGSGPFLPPSALLPDPDFFSGTVSLPGLEPPGGPDLLDDGFA
YDPTAPTLFTMLDLLPPAPPHASAVVCSGGAGAVVGETPGPEPLTLDSYQAPGPGDGGTASLVGSNMFPN
HYREAAFGGGLLSPGPEAT

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



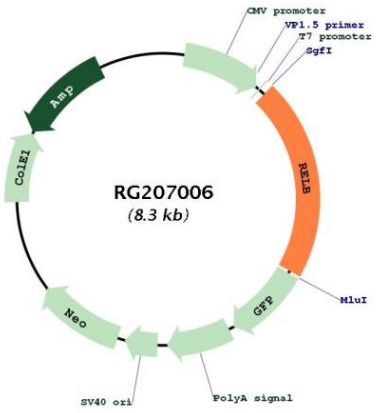
ACCN:	NM_006509
ORF Size:	1737 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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

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 processed 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]

Product images:



Circular map for RG207006