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Product datasheet for MR227671

Rela (NM_009045) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rela (NM_009045) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rela
Synonyms:	p65
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR227671 representing NM_009045
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGACGATCTGTTTCCCCTCATCTTTCCCTCAGAGCCAGCCCAGGCTTCTGGGCCTTATGTGGAGATCA
TCGAACAGCCGAAGCAACGGGGCATGCGATTCCGCTATAAATGCGAGGGGCGCTCAGCGGGCAGTATTCC
TGGCGAGAGAAGCACAGATACCACCAAGACACACCCCACCATCAAGATCAATGGCTACACAGGACCAGGA
ACAGTTCGAATCTCCCTGGTCACCAAGGATCCACCTCACCGGCCTCATCCACATGAACTTGTGGGGAAGG
ACTGCCGGGATGGCTACTATGAGGCTGACCTCTGCCCAGACCGCAGTATCCATAGCTTCCAGAACCTGGG
GATCCAGTGTGTGAAGAAGCGAGACCTGGAGCAAGCCATTAGCCAGCGAATCCAGACCAACAATAACCCC
TTTCACGTTCCTATAGAGGAGCAGCGCGGGGACTATGACTTGAATGCAGTGCGCCTCTGCTTCCAGGTGA
CAGTGCGGGACCCAGCAGGCAGGCCCCTCCTCCTGACCCCTGTCCTCTCACATCCGATTTTTGATAACCG
GGCCCCCAACACTGCCGAGCTCAAGATCTGCCGAGTAAACCGGAACTCTGGGAGCTGCCTCGGTGGGGAT
GAGATCTTCTTGCTGTGCGACAAGGTGCAGAAAGAAGACATTGAGGTGTATTTCACGGGACCAGGCTGGG
AGGCACGAGGCTCCTTTTCTCAAGCTGATGTGCATCGGCAAGTGGCCATTGTGTTCCGGACTCCTCCGTA
CGCCGACCCCAGCCTCCAGGCTCCTGTTCGAGTCTCCATGCAGCTACGGCGGCCTTCTGATCGCGAGCTC
AGTGAGCCCATGGAGTTCCAGTACTTGCCAGACACAGATGATCGCCACCGGATTGAAGAGAAGCGCAAAA
GGACCTATGAGACCTTCAAGAGTATCATGAAGAAGAGTCCTTTCAATGGACCAACTGAACCCCGGCCTCC
AACCCGGCGTATTGCTGTGCCTACCCGAAACTCAACTTCTGTCCCCAAGCCAGCCCCGCAGCCCTACACC
TTCCCAGCATCCCTCAGCACCATCAACTTTGATGAGTTTTCCCCCATGCTGTTACCATCAGGGCAGATCT
CAAACCAGGCCCTGGCCTTAGCACCGTCCTCTGCCCCAGTCCTTGCCCAGACCATGGTCCCTTCCTCAGC
CATGGTACCTCTGGCTCAGCCCCCAGCTCCTGCCCCAGTTCTAACCCCGGGTCCTCCCCAGTCCCTGTCT
GCACCTGTTCCAAAGAGCACCCAGGCTGGGGAAGGCACGCTGTCGGAAGCCCTGCTGCACCTGCAGTTTG
ATGCTGATGAAGACTTGGGGGCCTTGCTTGGCAACAGCACAGACCCAGGAGTGTTCACAGACCTGGCATC
TGTGGACAACTCAGAGTTTCAGCAGCTCCTGAACCAGGGTGTGTCCATGTCTCACTCCACAGCTGAGCCC
ATGCTGATGGAGTACCCTGAAGCTATAACTCGCCTGGTGACAGGGTCCCAGAGGCCCCCTGACCCAGCTC
CCACACCCCTGGGGACCTCGGGGCTTCCCAATGGTCTCTCCGGAGATGAAGACTTCTCCTCCATTGCGGA
CATGGACTTCTCTGCTCTTTTGAGTCAGATCAGCTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

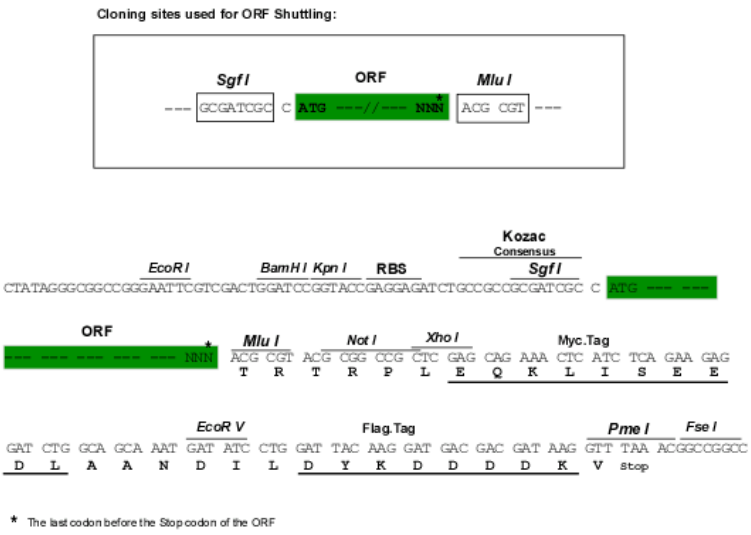
>MR227671 representing NM_009045
Red=Cloning site Green=Tags(s)

MDDLFPLIFPSEPAQASGPYVEIIEQPKQRGMRFRYKCEGRSAGSIPGERSTDTTKTHPTIKINGYTGPG
TVRISLVTKDPPHRPHPHELVGKDCRDGYYEADLCPDRSIHSFQNLGIQCVKKRDLEQAISQRIQTNNNP
FHVPIEEQRGDYDLNAVRLCFQVTVRDPAGRPLLLTPVLSHPIFDNRAPNTAELKICRVNRNSGSCLGGD
EIFLLCDKVQKEDIEVYFTGPGWEARGSFSQADVHRQVAIVFRTPPYADPSLQAPVRVSMQLRRPSDREL
SEPMEFQYLPDTDDRHRIEEKRKRTYETFKSIMKKSPFNGPTEPRPPTRRIAVPTRNSTSVPKPAPQPYT
FPASLSTINFDEFSPMLLPSGQISNQALALAPSSAPVLAQTMVPSSAMVPLAQPPAPAPVLTPGPPQSLS
APVPKSTQAGEGTLSEALLHLQFDADEDLGALLGNSTDPGVFTDLASVDNSEFQQLLNQGVSMSHSTAEP
MLMEYPEAITRLVTGSQRPPDPAPTPLGTSGLPNGLSGDEDFSSIADMDFSALLSQISS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_009045

ORF Size: 1647 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_009045.3

RefSeq Size: 2709 bp

RefSeq ORF: 1650 bp

Locus ID: 19697

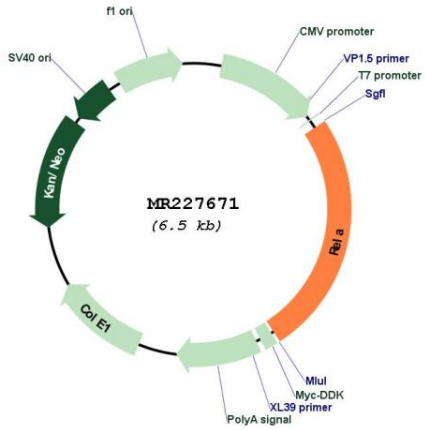
UniProt ID: Q04207

Cytogenetics: 19 4.34 cM

MW: 60.7 kDa

Gene Summary: NF-kappa-B is a pleiotropic transcription factor present in almost all cell types and is the endpoint of a series of signal transduction events that are initiated by a vast array of stimuli related to 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 heterodimeric RELA-NFKB1 complex appears to be most abundant one. 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. The NF-kappa-B heterodimeric RELA-NFKB1 and RELA-REL complexes, for instance, function as transcriptional activators. 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. The inhibitory effect of I-kappa-B on NF-kappa-B through retention in the cytoplasm is exerted primarily through the interaction with RELA. RELA shows a weak DNA-binding site which could contribute directly to DNA binding in the NF-kappa-B complex. Beside its activity as a direct transcriptional activator, it is also able to modulate promoters accessibility to transcription factors and thereby indirectly regulate gene expression (PubMed:29813070). Associates with chromatin at the NF-kappa-B promoter region via association with DDX1. Essential for cytokine gene expression in T-cells (By similarity). The NF-kappa-B homodimeric RELA-RELA complex appears to be involved in invasin-mediated activation of IL-8 expression (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227671