

## Product datasheet for **MG227671**

### Rela (NM\_009045) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rela (NM_009045) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rela
Synonyms:	p65
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>MG227671 representing NM\_009045  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGACGATCTGTTTCCCTCATCTTCCCTCAGACCCAGCCAGGCTTCTGGGCCATTGTGGAGATCA  
 TCGAACAGCCGAAGCAACGGGGCATGCGATTCCGCTATAAATGCGAGGGCGCTCAGCGGCAGTATTCC  
 TGGCGAGAGAAGCACAGATAACCACCAAGACACACCCACCATCAAGATCAATGGCTACACAGGACCAGGA  
 ACAGTTCGAATCTCCCTGGTCACCAAGGATCCACCTCACCGGCCTCATCCACATGAACCTGTGGGAAGG  
 ACTGCCGGGATGGCTACTATGAGGCTGACCTCTGCCAGACCGCAGTATCCATAGCTTCCAGAACCTGGG  
 GATCCAGTGTGTGAAGAAGCGAGACCTGGAGCAAGCCATTAGCCAGCGAATCCAGACCAACAATAACCCC  
 TTTACGTTCTATAGAGGAGCAGCGCGGGGACTATGACTTGAATGCAGTGCCTCTGCTTCCAGGTGA  
 CAGTGCGGGACCCAGCAGGCAGGCCCTCTCCTGACCCCTGTCCTCTCACATCCGATTTTTGATAACCG  
 GGCCCCAACACTGCCGAGCTCAAGATCTGCCGAGTAAACCGGAATCTGGGAGCTGCCTCGGTGGGGAT  
 GAGATCTTCTTGCTGTGCGACAAGGTGCAGAAAGAAGACATTGAGGTGATTTACAGGGACCCAGGCTGGG  
 AGGCACGAGGCTCCTTTCTCAAGCTGATGTGCATCGGCAAGTGCCATTGTGTTCCGGACTCCTCCGTA  
 CGCCGACCCAGCCTCCAGGCTCCTGTTGAGTCTCCATGCAGCTACGGCGGCCTTCTGATCGCGAGCTC  
 AGTGAGCCCATGGAGTTCAGTACTTGCAGACACAGATGATCGCCACCGGATTGAAGAGAAGCGCAAAA  
 GGACCTATGAGACCTTCAAGAGTATCATGAAGAAGAGTCTTTCAATGGACCAACTGAACCCCGGCTCC  
 AACCCGGCGTATTGCTGTGCCTACCCGAACTCAACTTCTGTCCCAAGCCAGCCCGCAGCCCTACACC  
 TTCCCAGCATCCCTCAGCACCATCAACTTTGATGAGTTTTCCCCATGCTTTACCATCAGGGCAGATCT  
 CAAACCAGGCCCTGGCCTTAGCACCGTCTCTGCCAGTCTGCCAGACCATTGCCAGACCATGGTCCCTTCTCAGC  
 CATGGTACCTCTGGCTCAGCCCCAGCTCTGCCCCAGTTCTAACCCCGGGTCTCCCCAGTCCCTGTCT  
 GCACCTGTTCCAAGAGCACCCAGGCTGGGAAGGCACGCTGTGGAAGCCCTGTGCACCTGCAGTTTG  
 ATGCTGATGAAGACTTGGGGCCTTGTGGCAACAGCACAGACCAGGAGTGTTCACAGACCTGGCATC  
 TGTGGACAACCTCAGAGTTTACAGAGCTCTGAACCAGGGTGTGTCCATGTCTCACTCCACAGCTGAGCCC  
 ATGCTGATGGAGTACCCTGAAGCTATAACTCGCTGGTGCAGGGTCCCAGAGGCCCTGACCCAGCTC  
 CCACCCCTGGGACCTCGGGCTTCCAATGGTCTCTCCGGAGATGAAGACTTCTCTCCATTGCGGA  
 CATGGACTTCTGCTCTTTGAGTCAGATCAGCTCC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG227671 representing NM\_009045  
 Red=Cloning site Green=Tags(s)

MDDLFLPLIFPSEPAQASGPYVEIIEQPKQRGMRFRYKCEGRSAGSIPGERSTDTTKHTPTIKINGYTGPG  
 TVRISLVTKDPPHRPHPELVGKDCRDGYEADLCPDRSIHSFQNLGIQCVKKRDLEQAI SQRIQTNNNP  
 FHVPIEEQRGDYDLNAVRLCFQTVTRDPAGRPLLLTPVLSHPIFDNRAPNTAELKICRVNRNSGSLGGD  
 EIFLLCDKVQKEDIEVYFTGPGWEARGSFQADVHRQVAIVFRTPPYADPSLQAPVRVSMQLRRPSDREL  
 SEPMEFQYLPDTPDRHRIEKRKRTYETFKSIMKKSPPFNGPTEPRPPTTRRIAVPTRNSTSVPKPAPQPYT  
 FPASLSTINFDEFSPMLLPSGQISNQALALAPSSAPVLAQTMVPSSAMVPLAQPPAPAPVLTGPPQSLS  
 APVVKSTQAGEGTLSEALLHLQFDAQEDL GALLGNSTDPGVFTDLASVDNSEFQQLLNQGVSMSSHSTAEP  
 MLMMEYPEAITRLVTGSQRPPDPAPTPLGTSGLPNGLSGDEDFSSIADMDF SALLSQISS

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-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.

RefSeq: [NM\\_009045.3](#)

RefSeq Size: 2709 bp

RefSeq ORF: 1650 bp

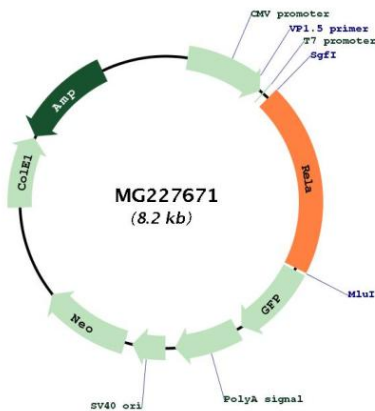
Locus ID: 19697

UniProt ID: [Q04207](#)

**Cytogenetics:** 19 4.34 cM

**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 MG227671