

Product datasheet for **SC327682**

NFKB1 (NM_001165412) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NFKB1 (NM_001165412) Human Untagged Clone
Tag:	Tag Free
Symbol:	NFKB1
Synonyms:	CVID12; EBP-1; KBF1; NF-kappa-B1; NF-kappaB; NF-kappabeta; NF-kB; NF-kB1; NFKappaB; NFKB-p50; NFKB-p105
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_001165412 edited
 AGGTTTCGCCACCGGAGCGGCCCGGCGACGCGCTGACAGCTTCCCTGCCCTTCCCGTCCG
 GTCGGGGCCAGCCGCGCAGCCCTCGGCTGCACGCAGCCACCGGCCCGCTCCCGGA
 GCCCAGCGCCCGGAGGCCGAGCCGCGCCCGCCAGTAAGCGCGCCCGCCCGCCGCCAC
 CGCGCGCCCTGCGCTTCCCTCCGCGCGCTGCGGCCATGGCGCGCGCTGACTGGCCTG
 GCCCGGCCCGCGCGCTCCCGCTCGCCCGACCCGCACTCGGGCCCGCCCGGCTCCGG
 CCTGCCGCGCCTCTTCTTCTCAGCCGGCAGGCCCGCGCCGCTTAGGAGGGAGAGCCC
 ACCCGCGCAGGAGGCCGAACGCGGACTCGCCACCCGGCTTCAAGATGGCAGAAGATGAT
 CCATATTTGGGAAGGCTGAACAAATGTTTCATTTGGATCCTTCTTTGACTCATAACAATA
 TTTAATCCAGAAGTATTTCAACCACAGATGGCACTGCCAAGATGGCCCATACCTTCAA
 ATATTAGACCACTAACAGAGAGGATTTCCGTTCCGTTATGTATGTGAAGGCCATCC
 CATGGTGGACTACCTGGTGCCTTAGTGAAGAACAAGAAGTCTTACCCTCAGGTCAA
 ATCTGCAACTATGTGGGACCAGCAAAGGTTATTGTTTCAGTTGGTCACAAATGGAAAAAT
 ATCCACCTGCATGCCACAGCCTGGTGGGAAAACACTGTGAGGATGGGATCTGCACTGTA
 ACTGCTGGACCAAGGACATGGTGGTCCGCTTCGCAAACCTGGGTATACTTCATGTGACA
 AAGAAAAAGTATTTGAAACACTGGAAGCACGAATGACAGAGGCGTGTATAAGGGGCTAT
 AATCCTGGACTCTTGGTGACCCCTGACCTTGCCTATTTGCAAGCAGAAGGTGGAGGGGAC
 CGGCAGCTGGGAGATCGGGAAAAAGAGCTAATCCGCCAAGCAGCTCTGCAGCAGACCAAG
 GAGATGGACCTCAGCGTGGTGGGCTCATGTTTACAGCTTTTCTCCGGATAGCACTGGC
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 AATGCATCCAACCTGAAAATTGTAAGAATGGACAGGACAGCTGGATGTGTGACTGGAGGG
 GAGGAAAATTTATCTTCTTTGTGACAAAAGTTCAGAAAAGATGACATCCAGATTCGATTTTAT
 GAAGAGGAAGAAAATGGTGGAGTCTGGGAAGGATTTGGAGATTTTCCCCACAGATGTT
 CATAGACAATTTGCCATTGTCTTCAAACTCAAAGTATAAAGATATTAATATTACAAAA
 CCAGCCTCTGTGTTTGTCCAGCTTCGGAGGAAATCTGACTTGGAACTAGTGAACAAAA
 CCTTCTCTACTATCCTGAAATCAAAGATAAAGAAGAAGTGCAGAGGAAACGTCAGAAG



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CTCATGCCCAATTTTTCCGATAGTTTCGGCGGTGGTAGTGGTGCCGGAGCTGGAGGCGGA
GGCATGTTTTGGTAGTGGCGGTGGAGGAGGGGCACTGGAAGTACAGGTCCAGGTATAGC
TTCCCACACTATGGATTTCTACTTATGGTGGGATTACTTTCCATCTGGAACACTAAA
TCTAATGCTGGGATGAAGCATGGAACCATGGACACTGAATCTAAAAAGGACCCTGAAGGT
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CTGCGTTGTCCACAAGACAGAAGCTGAAGTGCATCCAAAGGTGCTCAGAGAGCCGCCCCG
CCTGAATCATTCTCGATTTAACTCGAGACCTTTTCAACTTGGCTTCTTTCTTGGTTTCAT
AAATGAATTTTAGTTTGGTTCACTTACAGATAGTATCTAGCAATCACAACACTGGCTGAG
CGGATGCATCTGGGGATGAGGTTGCTTACTAAGCTTTGCCAGCTGCTGCTGGATCACAGC
TGCTTTCTGTTGTCATTGCTGTTGTCCCTCTGCTACGTTCTTATTGTCATTAAAGGTATC
ACGGTCGCCACCTGGCATTCTTCTGACCACAGCATCATTTTGCATTCAAATTAAGGGTT
AAGAAAAGAGATATTTTAAAATGAGAGTCACTTGATGTGCCATTTTAAAAAAAAAAGGCAT
ATTGCTTTTTCTAATGTGGTTATTTCTCTGATTTGCAAAAAAAAAAAAAAAAAAAAA

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Restriction Sites: NotI-NotI
ACCN: NM_001165412
Insert Size: 3800 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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: The ORF of this clone has been fully sequenced and found to be a perfect match to NM_001165412.1.

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_001165412.1](#), [NP_001158884.1](#)

RefSeq Size: 4090 bp

RefSeq ORF: 2907 bp

Locus ID: 4790

UniProt ID: [P19838](#)

Cytogenetics: 4q24

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Acute myeloid leukemia, Adipocytokine signaling pathway, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Cytosolic DNA-sensing pathway, Epithelial cell signaling in Helicobacter pylori infection, MAPK signaling pathway, Metabolic pathways, Neurotrophin signaling pathway, NOD-like receptor signaling pathway, Pancreatic cancer, Pathways in cancer, Prostate cancer, RIG-I-like receptor signaling pathway, Small cell lung cancer, T cell receptor signaling pathway, Toll-like receptor signaling pathway

Gene Summary:

This gene encodes a 105 kD protein which can undergo cotranslational processing by the 26S proteasome to produce a 50 kD protein. The 105 kD protein is a Rel protein-specific transcription inhibitor and the 50 kD protein is a DNA binding subunit of the NF-kappa-B (NFKB) protein complex. NFKB is a transcription regulator that is activated by various intra- and extra-cellular stimuli such as cytokines, oxidant-free radicals, ultraviolet irradiation, and bacterial or viral products. Activated NFKB translocates into the nucleus and stimulates the expression of genes involved in a wide variety of biological functions. Inappropriate activation of NFKB has been associated with a number of inflammatory diseases while persistent inhibition of NFKB leads to inappropriate immune cell development or delayed cell growth. NFKB is a critical regulator of the immediate-early response to viral infection. Alternative splicing results in multiple transcript variants encoding different isoforms, at least one of which is proteolytically processed. [provided by RefSeq, Aug 2020]

Transcript Variant: This variant (2) uses an alternate in-frame splice site in the 5' coding region compared to variant 1. The resulting isoform (2) has the same N- and C-termini but is 1 amino acid shorter than isoform 1. Variants 2 and 3 encode the same isoform (2).