

Product datasheet for **MG222909**

Ikbke (NM_019777) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ikbke (NM_019777) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ikbke
Synonyms:	AW558201; IKK-E; IKK-i; IKKepsilon; Ikki
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG222909 representing NM_019777
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCAGAGTACCACTAACTACCTGTGGCATACTGATGACCTGCTAGGGCAGGGGGCCACTGCCAGTGTGT
 ACAAGGCCGAAACAAGAAATCCGGGGAGGTGGTTGCTGTAAAGGTCTTCAACTCAGCCAGCTATCGGCG
 ACCTCCTGAGGTTGAGGTGAGGGAGTTTGGAGTCTGCGGAGGCTGAATCACCAGAACATCGTGAAGCTA
 TTCGCAGTGGAGGAAACGGGAGGAGCCGGCAGAAAGGTGCTAATCATGGAGTACTGCTCCAGTGGGAGCC
 TGCTGAGCGTGTGGAAGACCCTGAGAACCGTTCGGGCTTTCTGAAGAGGAGTTCTAGTGGTGTGCG
 CTGTGTGGTGGCTGGCATGAACCACTGCGGGAGAATGGCATTGTCCATCGGGACATCAAACCTGGGAAC
 ATCATGCGCTGGTGGGCGAGGAGGGGAGAGCATCTATAAGCTGTCTGACTTCGGGGCTGCCCGCAAGC
 TGGACGATGATGAGAAGTTGTTTCTGTCTATGGTACAGAGGAATACCTGCACCCTGACATGTATGAGCG
 TGCAGTGTGCGAAACCCAGCAAAGGCATTTGGTGTGACTGTGGATCTCTGGAGTATTGGGGTGACC
 CTGTACCACGCAGCCACAGGCAGTCTGCCCTTCATCCCCTTCGGTGGGCCCGGCCAACAAGAGATCA
 TGTACAGAATCACCACAGAGAAGCCAGCCGGGGCCATTTAGGGACTCAGAAGCAGGAAAATGGTCCCTT
 GGAGTGGAGCTACAGCCTCCCCATCACCTGTAGACTGTCCATGGGACTGCAGAACCAGCTGGTGGCCATC
 CTGGCCAAACATCTGGAGGTGGAAGAGGATAAGTGTGGGGCTTTGATCAGTTCTTCGCGGAGACCAGTG
 ACATTCTGCAGCGAACGGTCATCCACGTCTTTCCCTACCCAGGCCGTTTTGCATCATGTCTACATCCA
 CGCCACAACACGATTGCCATCTTTTGGAGGCTGTATATGAGCAGACCAACGTGACCCCAACACCAG
 GAGTACCTCTTCGAGGGTCAACCTTGTCTCCTTGAGCCAAGCCTCTCAGCCAGCACATCGCCACACAG
 CTGCCAGCAGCCCTCTAACTCTGTTGAGCATGTCCAGCGACACACCTAAGGGGCTGGCCTTCAGGGACCC
 TGCTCTGGATGTCCCAAAGTTCGTCCCTAAGGTTGACCTACAGGCCGATTACAGCACAGCTAAGGGGGTG
 CTGGGCGCTGGCTACCAGGCCCTGTGGCTGGCGGGTCTGCTGGATGGACAGGCGTTGATGCTTCGGG
 GGTACATTGGGTCTGGAGGTGCTTCAGGACACGTGCCAGCAGACACTGGAGGTCACACGGACAGCCCT
 CCTCTACCTCAGCAGCAGCCTGGGCACTGAAAGGTTTCAGCAGTGGAGCGGGGATGCCTGACGTCCAGGAA
 CGAAAGGAGGCCACAGAGCTAAGAACCAGGCTGCAGACTCTCAGAGATCCTGTCTAAATGTTCCACA
 ATGTCACAGAAACCCAAAGGAGCCTGAGCTGTCTGGGTGAAGAGCTTTTAAAGAACCGGGACCAGATTCA
 TGAGGATAACAAAAGTATCCAGAAGATTCAGTGTGTTTGGACAAGATGCACTTCATCTACAACAGTTC
 AAGAAATCCAGGATGAGGCCAGGGCTCAGCTACAATGAGGAGCAGATCCACAAGCTGGATAAGGTAATT
 TCAGTCATCTAGCCAAGAGGCTGCTGCAGGTGTTCCAGGAGGAGTGTGTGCAGACGTATCAGGTGTCGCT
 GGTCCACACAGGCAAGCGGATGAGGCAGGTGCAGAGGGCCAGAACCACCTGCATCTCATTGGCCACTCT
 GTGGCCACCTGTAACCTCGGAAGCCCGGGAGCCAGGAGAGTCTGAACAAGATCTTTGATCAGCTCCTTC
 TGGACAGAGCTTCCGAACAGGGAGCTGAGGTGTACCAGCAACCTATGGCTCCTCCTCCCGGCCCTGATCC
 GAAGGACCTGGTCTTCCACATGCAGGAGCTTTGTAATGATATGAAGCTATTGGCCTTTGATCTCCAGGAC
 AACAACCGACTCATCGAACGGTTACATAGAGTTCCATCGGCACCAGATGTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG222909 representing NM_019777
 Red=Cloning site Green=Tags(s)

MQSTTNYLWHTDDLGGGATASVYKARNKKSQGEVAVKVFNSASYRRPPEVQVREFEVLRRLNHQINIVKL
 FAVEETGGSRQKVLIMEYCSSGSLLSVLEDPENTFGLSEEEFLVVLRCVVAGMNLRENGIVHRDIKPGN
 IMRLVGEEGQSIYKLSDFGAARKLDDDEKFFSVYGTTEEYLHPDMYERAVLRKPQQKAFGVTVDLWSIGVT
 LYHAATGSLPFIPFGGPRRKEIMYRITTEKPAIISGTQKQENGPLEWSYSLPITCRLSMGLQNQLVPI
 LANILEVEEDKCGWFDQFFAETSDILQRTVIHVFSLPQAVLHHVYIHAHNTIAIFLEAVYEQTNVTPKHQ
 EYLFEGHPCVLEPSLSAQHIAHTAASSPLTLFMSSDTPKGLAFRDPALDVPKFPKVDLQADYSTAKGV
 LGAGYQALWLARVLLDQALMLRGLHWVLEVLQDTCQQTLEVTRTALLYLSSSLGTERFSSGAGMPDVQE
 RKEATELRTRLQTLSEILSKCSHNVETQRSLSCLELLKNRDQIHEDNKSIQKIQCCLDKMHFIYKQF
 KKSRRMPGLSYNEEQIHKLDKVNFSHLAKRLLQVFQEECVQTYQVSLVTHGKMRMQVQRAQNHHLIGHS
 VATCNSEARGAQESLNKIFDQLLLDRASEQGAEVSPQPMAPHPGDPKDLVFHMQELCNDMKLLAFDLQD
 NNRLIERLHRVPSAPDV

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM_019777

ORF Size: 2151 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: 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_019777.3](#), [NP_062751.2](#)

RefSeq Size: 3203 bp

RefSeq ORF: 2154 bp

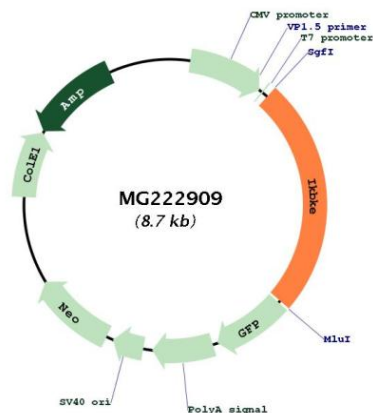
Locus ID: 56489

UniProt ID: [Q9R0T8](#)

Cytogenetics: 1 E4

Gene Summary:

Serine/threonine kinase that plays an essential role in regulating inflammatory responses to viral infection, through the activation of the type I IFN, NF-kappa-B and STAT signaling. Also involved in TNFA and inflammatory cytokines, like Interleukin-1, signaling. Following activation of viral RNA sensors, such as RIG-I-like receptors, associates with DDX3X and phosphorylates interferon regulatory factors (IRFs), IRF3 and IRF7, as well as DDX3X. This activity allows subsequent homodimerization and nuclear translocation of the IRF3 leading to transcriptional activation of pro-inflammatory and antiviral genes including IFNB. In order to establish such an antiviral state, IKBKE forms several different complexes whose composition depends on the type of cell and cellular stimuli. Thus, several scaffolding molecules including IPS1/MAVS, TANK, AZI2/NAP1 or TBKBP1/SINTBAD can be recruited to the IKBKE-containing-complexes. Activated by polyubiquitination in response to TNFA and interleukin-1, regulates the NF-kappa-B signaling pathway through, at least, the phosphorylation of CYLD. Phosphorylates inhibitors of NF-kappa-B thus leading to the dissociation of the inhibitor/NF-kappa-B complex and ultimately the degradation of the inhibitor. In addition, is also required for the induction of a subset of ISGs which displays antiviral activity, may be through the phosphorylation of STAT1 at 'Ser-708'. Phosphorylation of STAT1 at 'Ser-708' seems also to promote the assembly and DNA binding of ISGF3 (STAT1:STAT2:IRF9) complexes compared to GAF (STAT1:STAT1) complexes, in this way regulating the balance between type I and type II IFN responses. Protects cells against DNA damage-induced cell death. Also plays an important role in energy balance regulation by sustaining a state of chronic, low-grade inflammation in obesity, which leads to a negative impact on insulin sensitivity. Phosphorylates AKT1. [UniProtKB/Swiss-Prot Function]

Product images:


Circular map for MG222909