

Product datasheet for **MC220696**

Ikbke (BC037446) Mouse Untagged Clone

Product data:

| | |
|---------------------------|---------------------------------------|
| Product Type: | Expression Plasmids |
| Product Name: | Ikbke (BC037446) Mouse Untagged Clone |
| Tag: | Tag Free |
| Symbol: | Ikbke |
| Synonyms: | Ikki, IKK-i |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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Fully Sequenced ORF: >BC037446
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCAGAGTACCACTAACTACCTGTGGCATACTGATGACCTGCTAGGGCAGGGGGCCACTGCCAGTGTGT
 ACAAGGCCCGAAACAAGAAATCCGGGGAGGTGGTTGCTGTAAAGGTCTTCAACTCAGCCAGCTATCGGCG
 ACCTCCTGAGTTTCAGGGAGGCAGCCGGCAGAAGGTGCTAATCATGGAGTACTGCTCCAGTGGGAGCCTG
 CTGAGCGTGTGGAAGACCCTGAGAACACGTTCCGGCTTTCTGAAGAGGAGTTTCTAGTGGTGTGCGCT
 GTGTGGTGGTGGCATGAACCACCTGCGGGAGAATGGCATTGTCCATCGGGACATCAAACCTGGGAACAT
 CATGCGCCTGGTGGGCGAGGAGGGCAGAGCATCTATAAGCTGTCTGACTTCGGGGCTGCCCGAAGCTG
 GACGATGATGAGAAGTTTGTCTGTCTATGGTACAGAGGAATACCTGCACCCTGACATGTATGAGCGTG
 CAGTGTGCGCAAACCCAGCAAAGGCATTTGGTGTGACTGTGGATCTCTGGAGTATTGGGGTGACCTT
 GTACCACGCAGCCACAGGCAGTCTGCCCTTCATCCCCTTCGGTGGGCCCCGGCGCAACAAAGAGATCATG
 TACAGAATCACCCAGAGAAGCCAGCCGGGGCCATTTACGGGACTCAGAAGCAGGAAAATGGTCCCTTGG
 AGTGGAGCTACAGCCTCCCCATCACCTGTAGACTGTCCATGGGGCTGCAGAACAGCTGGTGCCCATCCT
 GGCCAACATCCTGGAGGTGGAAGAGGATAAGTGTGGGGCTTTGATCAGTTCTTCGCGGAGACCAGTGAC
 ATTCTGCAGCGAACGGTCATCCAGTCTTTTCCCTACCCAGGCCGTTTTGCATCATGTCTACATCCACG
 CCCACAACACGATTGCCATCTTTTTGGAGGCTGTATATGAGCAGACCAACGTGACCCCCAACACCAGGA
 GTACCTCTTCGAGGGTCAACCTTGTGTCTTGGAGCAAGCCTCTCAGCCAGCACATCGCCACACAGCT
 GCCAGCAGCCCTAACTCTGTTTCAGCATGTCCAGCGACACACCTAAGGGGCTGGCCTTCAGGGACCCTG
 CTCTGGATGTCCAAAGTTCGTCCCTAAGTGTGACCTACAGCCGATTACAGCACAGTAAGGGGGTGTCT
 GGGCGCTGGCTACAGGCCCTGTGGCTGGCGCGGGTCTGCTGGATGGACAGGCGTTGATGCTTCGGGGG
 TTACATTGGGTCTGGAGGTGCTTCAGGACACGTGCCAGCAGACACTGGAGGTACACAGGACAGCCCTCC
 TCTACCTCGGCAGCAGCCTGGGCACTGAAAGGTTGAGCAGTGGATCGGGGATGCCTGACGTCAGGAAACG
 AAAGGAGGCCACAGAGCTAAGAACCAGGCTGCAGACTCTCTCAGAGATCCTGTCTAAATGTTCCCAAT
 GTCACAGAAACCCAAAGGAGCCTGAGCTGTCTGGGTGAAGAGCTTTAAAGAACCAGGACCAGATTCATG
 AGGATAACAAAAGTATCCAGAAGATTGAGTGTGTTGGACAAGATGCACTTCATCTACAAAACAGTTCAA
 GAAATCCAGGATGAGGCCAGGGCTCAGCTACAATGAGGAGCAGATCCACAAGCTGGATAAGTAAATTTT
 AGTCATCTAGCCAAGAGGCTGCTGCAGGTGTTCCAGGAGGAGTGTGTGCAGACGTATCAGGTGTCGCTGG
 TCACACACGGCAAGCGGATGAGGCAGGTGCAGAGGGCCAGAACCACCTGCATCTCATTGGCCACTCTGT
 GGCCACCTGTAACCTCGGAAGCCCGGGGAGCCAGGAGAGTCTGAACAAGATCTTTGATCAGCTCCTTCTG
 GACAGAGCTTCCGAACAGGGAGCTGAGGTGTCACCGCAACCTATGGCTCCTCATCCCGCCCTGATCCGA
 AGGACCTGGTCTTCCACATGCAGGAGCTTTGTAATGATATGAAGCTATTGGCCTTTGATCTCCAGGACAA
 CAACCGACTCATCGAACGGTTACATAGAGTTCATCGGCACCAGATGTCTGA

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** BC037446
- Insert Size:** 2082 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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: [BC037446](#), [AAH37446](#)

RefSeq Size: 2931 bp

RefSeq ORF: 2081 bp

Locus ID: 56489

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]