

Product datasheet for **RC218437**

IRAK2 (NM_001570) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IRAK2 (NM_001570) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IRAK2
Synonyms:	IRAK-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC218437 representing NM_001570
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCCTGCTACATCTACCAGTGCCCTCTGGGTGCTGGACACCTGTGCCGAACATGGACGCGCTCA
 CGGAGTGGGACTGGATGGAGTTCGCTCCTACGTGATCACAGACCTGACCCAGCTCGGGAAGATCAAGTC
 CATGGAGCGGGTGCAGGGTGTGAGCATCACCGGGAGCTGCTGTGGTGGTGGGGCATGCGCAGGCCACC
 GTCCAGCAACTTGTGGACCTCTGTGCCGCTGGAGCTCTACCGGCTGCCAGATCATCTGAAGTGA
 AACCGGCTCTGAAATCAGGTGTCCATTCCAGCCTTCCCTGACTCTGTGAAGCCAGAAAAGCCTTTGGC
 AGCTTCTGTAAGAAAGGCTGAGGATGAACAGGAAGAGGGGCAGCCTGTGAGGATGGCCACCTTTCCAGGC
 CCAGGGTCTCTCAGCCAGAGCCACCAGCCGGCCTTTCTCCAGCTCTGAAGAAGATGCCCTCATT
 CCTTGAGAAGCGACCTCCCCTTCTGCTGATTCAAAGGACTTCAGCACCTCCATTCTAAGCAGAAAA
 ACTTTTGAAGTGGTGGAGACAGCCTTTCTGGAGTGAGGCAGACGTGGTCCAGCAACCGATGACTTC
 AATCAAAACCGCAAAATCAGCCAGGGGACCTTTGCTGACGTCTACAGAGGGCACAGGCACGGGAAGCCAT
 TCGTCTTCAAGAAGCTCAGAGAGACAGCCTGTTCAAGTCCAGGATCAATCGAAAGATTCTCCAGGCAGA
 GTTGACAGATTTGTCTTAGATGCTGCCACCCCAATGTTTCCCTACAGGACAGACTGCAGGGTCAAGGTTGGCT
 TTTACAGCTTACCTACCCCTACATGGCAATGGTTCCTACAGGACAGACTGCAGGGTCAAGGTTGGCT
 CGGACCCCTCCCCTGGCCCCAGCGTGTGAGCATCTGCTCAGGGTGTCTGTGCCGTCGAGTACCTGCA
 TGGTCTGGAGATCATCCACAGCAACGTCAAGAGCTTAATGTCTTGTGGACAAAATCTCACCCCCAAA
 CTTGCTCACCCAATGGCTCATCTGTGCTGTCAACAAAAGGTCAAAATACACCATGATGAAGACTCACC
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 GAGGTGTGGCTCTGTGGCTGCTGTGGAAGAGCGGCTCCGAGGTGGGAGACGTTGCTCCCTTGGAGTG
 GGCTTTCTGAGGGTACAGGCTCTTCTTCAACACCCAGAGGAAACAGACGACGTTGACAATTCAGCCT
 TGATGCCTCCTCCTCATGAGTGTGGCACCTGGGAGGGGCTGCCACCCACTTCTCCCCACAGAGAAT
 GGGGAAGGAAGGCTGCGGTCATCGTGGGAAGGGAGGCTGACTCCTCTGAGGCTGTGTTGGCCTGG
 AGCCTCCCAGGATGTTACAGAACTTCGTGGCAAATTGAGATCAATGAGGCCAAAAGGAAACTGATGGA
 GAATATTCTGCTCTACAAAGAGGAAAAAGTGGACAGCATTGAGCTCTTTGGCCCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

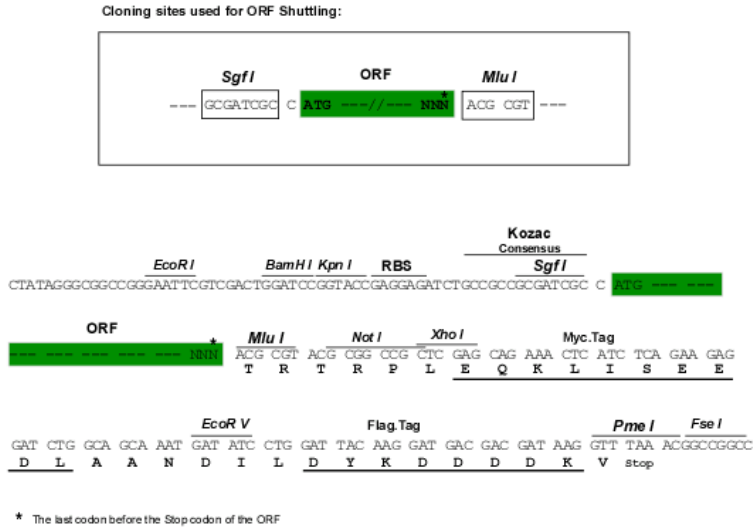
>RC218437 representing NM_001570
 Red=Cloning site Green=Tags(s)

MACYIYQLPSWVLDLRCRNDALSEWDWMEFASYVITDLTQLRKIKSMERVQGVSI TRELLWWWGMRQAT
 VQQLVDLLCRLELYRAAQIILNWKPAPEIRCPAPFDSVKPEKPLAASVRKAEDQEEGQPVRMATFPG
 PGSSPARAHQPAFLQPPEEDAPHSRLSDLPSSDSKDFSTSIKQEKLLSLAGDSLFWSEADVQATDDF
 NQNRKISQGTADVYRGRHRHGKPFVFKKLRETACSSPGSIERFFQAEQLICLRCCHPNVLPVLFCAARQ
 FHSFIYPYMANGLQDRLQGGSDPLPWPQRVISGILLCAVEYLHGLEIHSNVKSSNVLLDQNLTPK
 LAHPMAHLCPVNRKSKYTMMKTHLLRRTSAAYLPEDFIRVGQLTKRVDIFSCGIVLAEVLTGIPAMDNRS
 PVYKDLLLSDIPSSASLCSRKTGVENVMAKEICQKYLEKAGRLPEDCAEALATAACLCLRRRNTSLQ
 EVCGSVAAVEERLRGRETLLPWSGLSEGTSSSNTPEETDDVDNSSLDASSMSVAPWAGATPLLPTEN
 GEGRLRVIVGREADSSSEACVGLPEPPQDVTETSWQIEINEAKRKL MENILLYKEEKVDSIELFGP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001570

ORF Size: 1875 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](#)

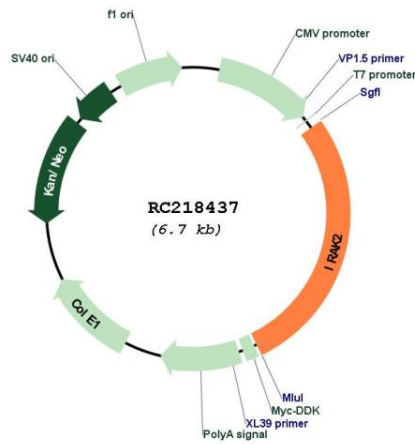
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

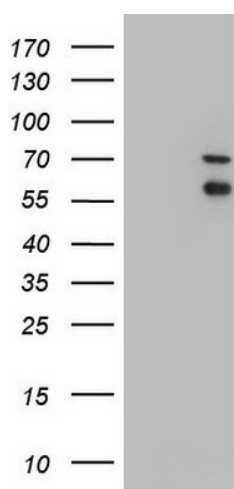
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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:	<u>NM_001570.4</u>
RefSeq Size:	3469 bp
RefSeq ORF:	1878 bp
Locus ID:	3656
UniProt ID:	<u>O43187</u>
Cytogenetics:	3p25.3
Domains:	DEATH, pkinase
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Apoptosis, Neurotrophin signaling pathway
MW:	69.3 kDa
Gene Summary:	IRAK2 encodes the interleukin-1 receptor-associated kinase 2, one of two putative serine/threonine kinases that become associated with the interleukin-1 receptor (IL1R) upon stimulation. IRAK2 is reported to participate in the IL1-induced upregulation of NF-kappaB. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC218437



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY IRAK2 (Cat# RC218437, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-IRAK2 (Cat# [TA803648]).