

Product datasheet for **RC225772**

IRAK4 (NM_001114182) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IRAK4 (NM_001114182) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IRAK4
Synonyms:	IMD67; IPD1; IRAK-4; NY-REN-64; REN64
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC225772 representing NM_001114182
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAACAAACCCATAACACCATCAACATATGTGCGCTGCCTCAATGTTGGACTAATTAGGAAGCTGTCAG
 ATTTTATTGATCCTCAAGAAGGATGGAAGAAGTTAGCTGTAGCTATTAACCAACATCTGGTGTATAG
 ATACAATCAGTTTACATAAAGGAGATTTGAAGCATTACTTCAAACCTGGAAAAAGTCCCACTTCTGAATTA
 CTGTTTACTGGGGCACCACAAATTGCACAGTTGGTGTCTTGTGGATCTTTTGTCCAAAATGAATTTT
 TTGCTCCTGCGAGTCTTTTGTCCAGATGCTGTTCCAAAACCTGCTAATACTACCTTCTAAAGAAGC
 TATAACAGTTTACGAAAAACAGATGCCTTTCTGTGACAAAGACAGGACATTGATGACACCTGTGCAGAA
 CTTGAACAAAGCTATATGCCACCTGACTCCTCAAGTCCAGAAAAAAAAGTTTGAAGTTAGTGATACAC
 GTTTTACAGTTTTTTCATTTTATGAATTGAAGAATGTCACAAATAACTTTGATGAACGCCCATTTCTGT
 TGGTGGTAATAAAATGGGAGAGGGAGGATTTGGAGTTGTATATAAAGGCTACGTAATAACACAACCTGTG
 GCAGTGAAGAAGCTTGCAGCAATGGTTGACACTACTGAAAGAACTGAAACAGCAGTTTGTCAAGAAA
 TAAAAGTAATGGCAAAGTGTCAACATGAAAACCTAGTAGAACTACTTGGTTTCTCAAGTGTGGAGATGA
 CCTCTGCTTAGTATATGTTTACATGCCTAATGGTTCATTGCTAGACAGACTCTCTTGGTGGATGGTACT
 CCACCCTTTCTTGGCACATGAGATGCAAGATTGCTCAGGGTGCAGCTAATGGCATCAATTTTCTACATG
 AAAATCATCATATTCATAGAGATATTAAGAGTGAACAATCTTACTGGATGAAGCTTTTACTGCTAAAAT
 ATCTGACTTTGGCCTTGCACGGGCTTCTGAGAAGTTGCCAGACAGTCTGACTAGCAGAATTGTGGGA
 ACAACAGCTTATATGGCACCAGAAGCTTTCGCTGGAGAAAATAACCCAAATCTGATATTTACAGCTTTG
 GTGTGGTTTTACTAGAAAATAAATACTGGACTTCCAGCTGTGGATGAACCCGTGAACCTCAGTTATTGCT
 AGATATTAAGAAGAAAATTGAAGATGAAGAAAAGACAATTGAAGATTATATTGATAAAAAGATGAATGAT
 GCTGATCCACTTCAGTTGAAGCTATGACTCTGTTGCTAGTCAATGCTGTCATGAAAAGAAAAATAAGA
 GACCAGACATTAAGAAGTTCAACAGCTGCTGCAAGAGATGACAGCTTCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC225772 representing NM_001114182
 Red=Cloning site Green=Tags(s)

MNKPITPSTYVRCLNVGLIRKLSDFIDPQEGWKKLAVAIKKPSGDDRYNQFHRRFEALLQTGKSPTSEL
 LFDWGTNCTVGDLDLLIQNEFFAPASLLLPDAVPKANTLPSKEAIVQKQMPFCDKDRTLMPVQN
 LEQSYMPDSSSPENKSLEVSDTRFHSFSFYELKNVTNNFDERPISVGGNKMGEVGGVYVYKGYVNNNTV
 AVKKLAAAMVDITTEELKQQFDQEIKVMAKQHENLVELLGFSSDGDCLVYVYMPNGSLDRLSCLDGT
 PPLSWHMRCKIAQGAANGINFLHENHHIHRDIKSANILLDEAFTAKISDFGLARASEKFAQTVMTSRIVG
 TTAYMAPEALRGEITPKSDIYSFGVLLLEIITGLPAVDEHREPQLLLDIKEEIEDEEKTIEDYIDKKMND
 ADSTSVEAMYSVASQCLHEKKNRPDIKKVQQLLQEMTAS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6155_b05.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001114182

ORF Size: 1380 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001114182.2](#), [NP_001107654.1](#)

RefSeq ORF: 1383 bp

Locus ID: 51135

UniProt ID: [Q9NWZ3](#)

Cytogenetics: 12q12

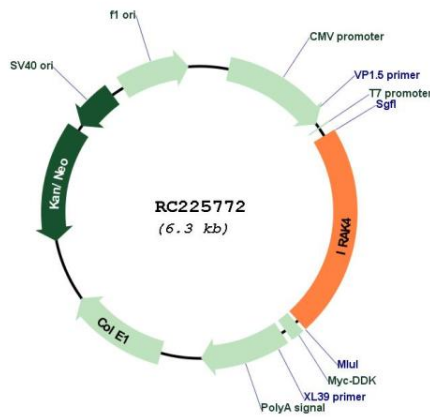
Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Apoptosis, Neurotrophin signaling pathway, Toll-like receptor signaling pathway

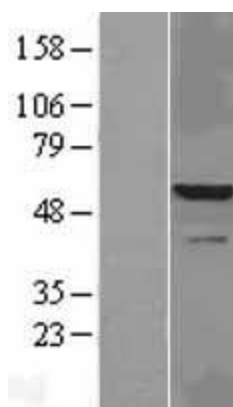
MW: 51.3 kDa

Gene Summary: This gene encodes a kinase that activates NF-kappaB in both the Toll-like receptor (TLR) and T-cell receptor (TCR) signaling pathways. The protein is essential for most innate immune responses. Mutations in this gene result in IRAK4 deficiency and recurrent invasive pneumococcal disease. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2011]

Product images:



Circular map for RC225772



Western blot validation of overexpression lysate (Cat# [LY426473]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225772 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).