

Product datasheet for **RG227352**

IRAK4 (NM_001145257) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IRAK4 (NM_001145257) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IRAK4
Synonyms:	IMD67; IPD1; IRAK-4; NY-REN-64; REN64
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG227352 representing NM_001145257
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAACAAACCCATAACACCATCAACATATGTGCGCTGCCTCAATGTTGGACTAATTAGGAAGCTGTCAG
 ATTTTATTGATCCTCAAGAAGGATGGAAGAAGTTAGCTGTAGCTATTAACCAACATCTGGTGATGATAG
 ATACAATCAGTTTACATAAAGGAGATTTGAAGCATTACTTCAAACCTGGAAAAAGTCCCACTTCTGAATTA
 CTGTTTACTGGGGCACCACAAATTGCACAGTTGGTGATCTTGTGGATCTTTTATCCAAAATGAATTTT
 TTGCTCCTGCAAGTCTTTTGTCCAGATGCTGTTCCAAAACCTGCTAATACTACCTACCTTAAAGAAGC
 TATAACAGTTTCAACAAAAACAGATGCCTTTCTGTGACAAAGACAGGACATTGATGACACCTGTGCAGAA
 CTTGAACAAAGCTATATGCCACCTGACTCCTCAAGTCCAGAAAAAAAAGTTTGAAGTTAGTGATACAC
 GTTTTACAGTTTTTTCATTTTATGAATTGAAGAATGTCACAAATAACTTTGATGAACGCCCATTTCTGT
 TGGTGGTAATAAAATGGGAGAGGGAGGATTTGGAGTTGTATATAAAGGCTACGTAATAACACAACCTGTG
 GCAGTGAAGAAGCTTGCAGCAATGGTTGACACTACTGAAAGAACTGAAACAGCAGTTTGTCAAGAAA
 TAAAAGTAATGGCAAAGTGTCAACATGAAAACCTAGTAGAACTACTTGGTTTCTCAAGTGTGGAGATGA
 CCTCTGCTTAGTATATGTTTACATGCCTAATGGTTCATTGCTAGACAGACTCTCTTGGTGGATGGTACT
 CCACCCTTTCTTGGCACATGAGATGCAAGATTGCTCAGGGTGCAGCTAATGGCATCAATTTTCTACATG
 AAAATCATCATATTCATAGAGATATTAAGAGTGAACATATCTTACTGGATGAAGCTTTTACTGCTAAAA
 ATCTGACTTTGGCCTTGCACGGGCTTCTGAGAAGTTTCCAGACAGTCTGACTAGCAGAATTGTGGGA
 ACAACAGCTTATATGGCACCAGAAGCTTTGCGTGGAGAAAATAACCCAAATCTGATATTTACAGCTTTG
 GTGTGGTTTTACTAGAAAATAAATACTGGACTTCCAGCTGTGGATGAACACCGTGAACCTCAGTTATTGCT
 AGATATTAAGAAGAAAATTGAAGATGAAGAAAAGACAATTGAAGATTATATTGATAAAAAGATGAATGAT
 GCTGATCCACTTCAGTTGAAGCTATGACTCTGTTGCTAGTCAATGCTGCTGCATGAAAAGAAAAATAAGA
 GACCAGACATTAAGAAGTTCAACAGCTGCTGCAAGAGATGACAGCTTCT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG227352 representing NM_001145257
 Red=Cloning site Green=Tags(s)

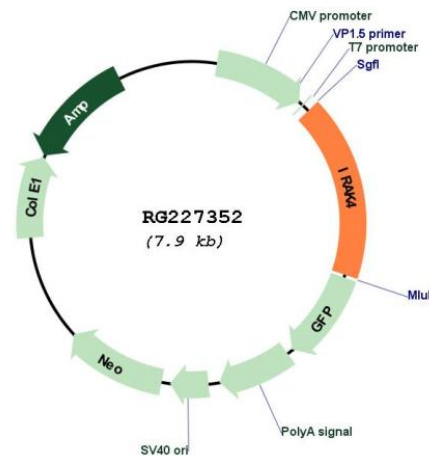
MNKPITPSTYVRCLNVGLIRKLSDFIDPQEGWKKLAVAIKKPSGDDRYNQFHRRFEALLQTGKSPTSEL
 LFDWGTNCTVGDLDVLLIQNEFFAPASLLLPDAVPKTANTLPSKEAITVQQKQMPFCDKDRTLMTVPQN
 LEQSYMPDSSSPENKSLEVSDFRHSFSFYELKNVTNNFDERPISVGGNKMGEVGGVYVYKGYVNNNTV
 AVKLAAMVDITTEELKQQFDQEIKVMAKQHENLVELLGFSSDGDCLVYVYMPNGSLLDRLSCLDGT
 PPLSWHMRCKIAQGAANGINFLHENHHIHRDIKSANILLDEAFTAKISDFGLARASEKFAQTVMTSRIVG
 TTAYMAPEALRGEITPKSDIYSFGVLLLEIITGLPAVDEHREPQLLLDIKKEIEDEEKTIEDYIDKKMND
 ADSTSVEAMYSVASQCLHEKKNRPDIKKVQQLQEMTAS

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Plasmid Map:


ACCN: NM_001145257

ORF Size: 1383 bp

OTI Disclaimer: 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:	<ol style="list-style-type: none">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_001145257.1, NP_001138729.1</u>
RefSeq Size:	4157 bp
RefSeq ORF:	1011 bp
Locus ID:	51135
UniProt ID:	<u>Q9NWZ3</u>
Cytogenetics:	12q12
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Apoptosis, Neurotrophin signaling pathway, Toll-like receptor signaling pathway
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]