

## Product datasheet for **RG227368**

### **IRAK4 (NM\_001145258) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	IRAK4 (NM_001145258) 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:**

>RG227368 representing NM\_001145258  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGAACAAACCCATAACACCATCAACATATGTGCGCTGCCTCAATGTTGGACTAATTAGGAAGCTGTCAG  
 ATTTTATTGATCCTCAAGAAGGATGGAAGAAGTTAGCTGTAGCTATTAACCAACCATCTGGTGATGATAG  
 ATACAATCAGTTTACATAAAGGAGATTTGAAGCATTACTTCAAACCTGGAAAAAGTCCCACTTCTGAATTA  
 CTGTTTACTGGGGCACCACAAATTGCACAGTTGGTGATCTTGTGGATCTTTTGTCCAAAATGAATTTT  
 TTGCTCCTGCAAGTCTTTTGTCCAGATGCTGTTCCAAAACCTGCTAATACTACCTACCTTCTAAAGAAGC  
 TATAACAGTTTCAACAAAACAGATGCCTTTCTGTGACAAAAGACAGGACATTGATGACACCTGTGCAGAA  
 CTTGAACAAAGCTATATGCCACCTGACTCCTCAAGTCCAGAAAAAAAAGTTTGAAGTTAGTGATACAC  
 GTTTTACAGTTTTTTCATTTTATGAATTGAAGAATGTCACAAAATACTTTGATGAACGCCCATTTCTGT  
 TGGTGGTAATAAAATGGGAGAGGGAGGATTTGGAGTTGTATATAAAGGCTACGTAATAACACAACCTGTG  
 GCAGTGAAGAAGCTTGCAGCAATGGTTGACACTACTGAAAGAACTGAAACAGCAGTTTGTCAAGAAA  
 TAAAAGTAATGGCAAAGTGTCAACATGAAAACCTAGTAGAACTACTTGGTTTCTCAAGTGATGGAGATGA  
 CCTCTGCTTAGTATATGTTTACATGCCTAATGGTTCATTGCTAGACAGACTCTCTTGGTGGATGGTACT  
 CCACCCTTTCTTGGCACATGAGATGCAAGATTGCTCAGGGTGCAGCTAATGGCATCAATTTTCTACATG  
 AAAATCATCATATTCATAGAGATATTAAGAGTGCAAAATCTTACTGGATGAAGCTTTTACTGCTAAAAT  
 ATCTGACTTTGGCCTTGCACGGGCTTCTGAGAAGTTGCCAGACAGTCTGACTAGCAGAATTGTGGGA  
 ACAACAGCTTATATGGCACCAGAAGCTTTCGCTGGAGAAAATAACCCCAAATCTGATATTTACAGCTTTG  
 GTGTGGTTTTACTAGAAAATAAATACTGGACTTCCAGCTGTGGATGAACACCCGTGAACCTCAGTTATTGCT  
 AGATATTAAGAAGAAAATTGAAGATGAAGAAAAGACAATTGAAGATTATATTGATAAAAAGATGAATGAT  
 GCTGATCCACTTCAGTTGAAGCTATGTACTCTGTTGCTAGTCAATGCTGTCATGAAAAGAAAATAAGA  
 GACCAGACATTAAGAAGTTCAACAGCTGCTGCAAGAGATGACAGCTTCT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

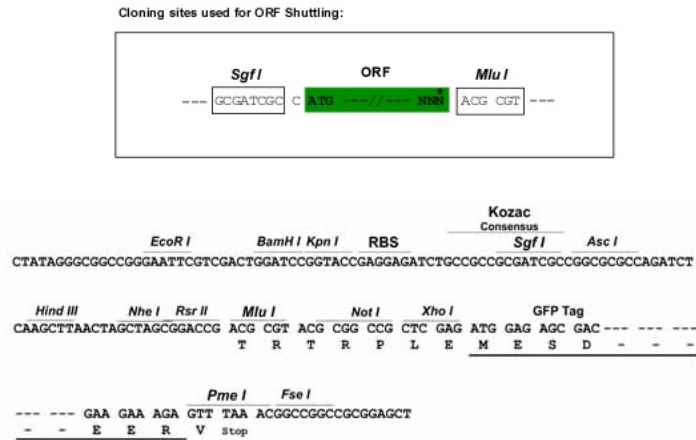
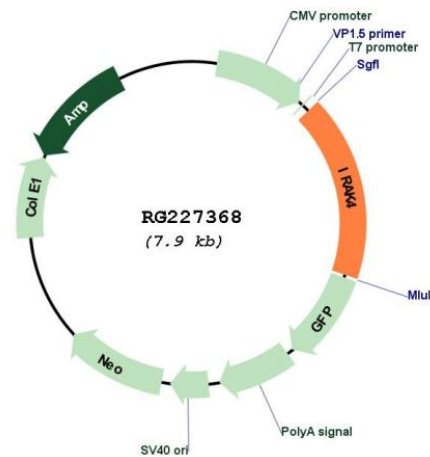
>RG227368 representing NM\_001145258  
 Red=Cloning site Green=Tags(s)

MNKPITPSTYVRCLNVGLIRKLSDFIDPQEGWKKLAVAIKKPSGDDRYNQFHRRFEALLQTGKSPTSEL  
 LFDWGTNCTVGDLDVLLIQNEFFAPASLLLPDAVPKTANTLPSKEAITVQQKQMPFCDKDRTLMTVPQN  
 LEQSYMPDSSSPENKSLEVSDFRHSFSFYELKNVTNNFDERPISVGGNKMGEVGVVYKGYVNNNTTV  
 AVKKLAAMVDITTEELKQQFDQEIKVMAKQHENLVELLGFSSDGDCLVYVYMPNGSLLDRLSCLDGT  
 PPLSWHMRCKIAQGAANGINFLHENHHIHRDIKSANILLDEAFTAKISDFGLARASEKFAQTVMTSRIVG  
 TTAYMAPEALRGEITPKSDIYSFGVLLLEIITGLPAVDEHREPQLLLDIKKEIEDEEKTIEDYIDKKMND  
 ADSTSVEAMYSVASQCLHEKKNRPDIKKVQQLQEMTAS

TRTRPLE – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001145258

**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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001145258.1, NP_001138730.1</u>
<b>RefSeq Size:</b>	3987 bp
<b>RefSeq ORF:</b>	1011 bp
<b>Locus ID:</b>	51135
<b>UniProt ID:</b>	<u>Q9NWZ3</u>
<b>Cytogenetics:</b>	12q12
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Apoptosis, Neurotrophin signaling pathway, Toll-like receptor signaling pathway
<b>Gene Summary:</b>	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]