

## Product datasheet for **RC221544**

### **IRAK (IRAK1) (NM\_001569) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	IRAK (IRAK1) (NM_001569) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IRAK
Synonyms:	IRAK; pelle
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC221544 representing NM\_001569  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCGGGGGGCCGGGCCGGGGAGCCCGAGCCCCGGCGCCAGCACTTCTTGTACGAGGTGCCGC  
 CCTGGGTGATGTGCCGCTTCTACAAAGTATGGACGCCCTGGAGCCCGCGACTGGTGCCAGTTCGCCGC  
 CCTGATCGTGCGCGACCAGACCGAGCTGCGGCTGTGCGAGCGCTCCGGGAGCGCACGGCCAGCGTCTG  
 TGGCCTGGATCAACCGCAACGCCCGTGTGGCCGACCTCGTGCACATCCTCACGCACCTGCAGTCTCC  
 GTGCGCGGGACATCATCACAGCCTGGCACCCCTCCCGCCCCGTTCCGTCCCAGGACCAGTCCCCGAG  
 GCCAGCAGCATCCCTGCACCCCGGAGGCCGAGGCTGGAGCCCCGGAAGTTGCCATCCTCAGCCTCC  
 ACCTTCTCTCCCAGCTTTTCCAGGCTCCAGACCCATTAGGGCTGAGCTCGCCTGGTTCCAAGCC  
 CTGCTTCCCTGTGGCCTCCACCGCCATCCTCAGCCCCCTTCTTCTACCAAGCCAGGCCAGAGAGCTCAGT  
 GTCCCTCTGCAGGGAGCCCGCCCTCTCCGTTTTGCTGGCCCCCTGTGAGATTCCCGGGGACCCAC  
 AACTTCTCGGAGGAGCTCAAGATCGGGGAGGGTGGCTTTGGGTGCGTGTACCGGGCGGTGATGAGGAACA  
 CGGTGTATGCTGTGAAGAGGCTGAAGGAGAACGCTGACCTGGAGTGGACTGCAGTGAAGCAGAGTTCCT  
 GACCGAGTGGAGCAGCTGTCCAGTTCGTCACCCAAACATTGTGGACTTTGCTGGCTACTGTGCTCAG  
 AACGGTCTACTGCCTGGTGTACGGTTCCTGCCAACGGCTCCCTGGAGGACCGTCTCCACTGCCAGA  
 CCCAGGCTGCCACCTCTCTCTGGCCTCAGCGACTGGACATCCTTCTGGGTACAGCCCGGCAATTCA  
 GTTTCTACATCAGGACAGCCCCAGCCTCATCCATGGAGACATCAAGAGTCCAACGCTCTTCTGGATGAG  
 AGGCTGACACCAAGCTGGGAGACTTTGGCCTGGCCCGTTTCCAGCCGTTTCCCGGTCCAGCCCCAGCC  
 AGAGCAGCATGGTGGCCCGGACACAGACAGTGGGGGACCCCTGGCCTACCTGCCGAGGAGTACATCAA  
 GACGGGAAGGCTGGCTGTGGACACGGACACCTTCAGCTTTGGGGTGGTAGTGCTAGAGACCTTGGCTGGT  
 CAGAGGGCTGTGAAGACGCACGGTGCCAGGACCAAGTATCTGAAAGACCTGGTGAAGAGGAGGCTGAGG  
 AGGCTGGAGTGGCTTTGAGAAGCACCCAGAGCACACTGCAAGCAGGTCTGGCTGCAGATGCCTGGCTGC  
 TCCCATCGCCATGCAGATCTACAAGAAGCACCTGGACCCAGGCCCGGGCCCTGCCACCTGAGCTGGGC  
 CTGGCCCTGGGCCAGCTGGCCTGCTGCTGCCTGCACCGCCGGGCCAAAAGGAGGCCTCCTATGACCCAGG  
 TGTACGAGAGGCTAGAGAAGCTGCAGGCAGTGGTGGCGGGGTGCCCGGCATTTGGAGGCCGCCAGCTG  
 CATCCCCCTTCCCGCAGGAGAACTCCTACGTGTCCAGCACTGGCAGAGCCACAGTGGGGCTGTCCA  
 TGGCAGCCCTGGCAGCGCCATCAGGAGCCAGTCCCAGGCAGCAGAGCAGCTGCAGAGAGGCCCAACC  
 AGCCCGTGAGAGTGACGAGAGCCTAGGCGGCCTCTGCTGCCCTGCGCTCCTGGCACTTGACTCCAAG  
 CTGCCCTCTGGACCCAGCACCCCTCAGGGAGGCCGGCTGTCTCAGGGGACACGGCAGGAGAATCGAGC  
 TGGGGGAGTGGCCAGGATCCCAGGCCACAGCCGTGGAAGGACTGGCCCTTGGCAGCTCTGCATCATCGT  
 CGTCAGAGCCACCGCAGATTATCATCAACCCTGCCCGACAGAAGATGGTCCAAAAGCTGGCCCTGTACGA  
 GGATGGGGCCCTGGACAGCCTGCAGTGTGCTGCTCCAGCTCCCTCCCAGGCTTGGGCTGGAACAGGAC  
 AGGCAGGGGCCGAAGAAAGTATGAATTCAGAGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC221544 representing NM\_001569  
Red=Cloning site Green=Tags(s)

MAGGPGPGEPAAPGAQHFLYEVPWVMCRFYKVMDALEPADWCQFAALIVRDQTELRLCERSGQRTASVL  
 WPWINRNARVADLVHILTHLQLLRARDIITAWHPPAPLPSPGTTAPRPSSIPAPAEAEAWSPRKLPSSAS  
 TFLSPAFPGSQTHSGPELGLVSPASLWPPPPSPAPSSTKPGPESSVLLQGARPSPFCWPLCEISRGT  
 NFSEELKIGEGGFVCYRAVMRNTVYAVKRLKENADLEWTAVKQSFLTEVEQLSRFRHPNIVDFAGYCAQ  
 NGFYCLVYGFPLPNGSLEDRLHCQTQACPLSWPQRLDILLGTARAIQFLHQDSPSLIHGDIKSSNVLLDE  
 RLTPKLGDFLARFSRFAGSSPSQSSMVARTQTVRGTLAYLPEEYIKTGR LAVD TDTFSFGVVVLETLAG  
 QRAVKTHGARTKYLKDLVEEEAEEAGVALRSTQSTLQAGLAADAWAAPIAMQIYKHLDRPGPCPELGL  
 LGLGQLACCLHRRARRPPMTQVYERLEKLQAVVAGVPGHLEAASCIPPSPQENSYVSSTGRAHSGAAP  
 WQPLAAPSGASAQAAEQLRGPNQPVESDESGLGSAALRSWHLTPSCPLDPAPLREAGCPQGD TAGESS  
 WSGGPGSRPTAVEGLALGSSASSSEPPQIIINPARQKMQKLALYEDGALDSLQLLSSSLPGLGLEQD  
 RQGPEESDEFQS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg3276\\_h05.zip](https://cdn.origene.com/chromatograms/mg3276_h05.zip)

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001569

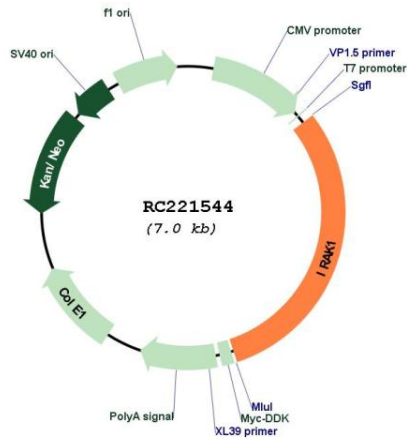
**ORF Size:** 2136 bp

**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](#)

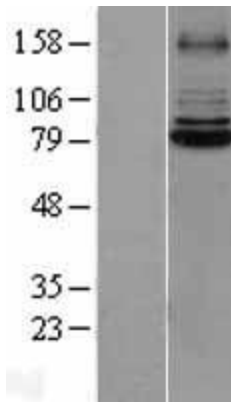
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_001569.4</a>
<b>RefSeq Size:</b>	3589 bp
<b>RefSeq ORF:</b>	2139 bp
<b>Locus ID:</b>	3654
<b>UniProt ID:</b>	<a href="#">P51617</a>
<b>Cytogenetics:</b>	Xq28
<b>Domains:</b>	DEATH, pkinase, TyrKc, S_TKc
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transcription Factors
<b>Protein Pathways:</b>	Apoptosis, Neurotrophin signaling pathway, Toll-like receptor signaling pathway
<b>MW:</b>	76.4 kDa
<b>Gene Summary:</b>	This gene encodes the interleukin-1 receptor-associated kinase 1, one of two putative serine/threonine kinases that become associated with the interleukin-1 receptor (IL1R) upon stimulation. This gene is partially responsible for IL1-induced upregulation of the transcription factor NF-kappa B. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC221544



Western blot validation of overexpression lysate (Cat# [LY400603]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221544 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).