

## Product datasheet for **RG234519**

### **IRAG1 (NM\_001206881) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	IRAG1 (NM_001206881) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IRAG1
Synonyms:	IRAG; JAW1L; MRV11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG234519 representing NM\_001206881  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCCCTGAACAGCCCTCAGCCTGGCCCCGTGGAGAGCGAGCTGGGAAGCAGCTCTTGAAACGGGCT  
 GGGAGGGCAGCCCTCTGCCGAGAAGTCCAACCCAGGATGCGGCAGGAGTGGGTCCCCAGCCTCCCAGGG  
 GAGAGGCCAGCTGGAGAGCCGATGGGGCCGAGGCTGGCTCCAAGCTGAGCTTCCACCCACTGTGTCC  
 CGGCCCCCGCTGCTGCGAGGGCTCTCTGGGACAGTGGCCCTGAAGAACCTGGCCCCGGCTGCAGAAAG  
 TGCTTGCCAAAGCTGCCACTGGCAGAGGAAGAAAAGCGTTTTGCAGGCAAGGCCGGCGCAAGCTGGCCAA  
 GGCCCTGGTCTCAAAGACTTTTCAGATACAAGTGCAGCCCGTGGGATGCAGAACTGACCAAGCTCCGA  
 GAGGAGCACATCCTGATGAGAAATCAGAACTTAGTGGGGCTCAAGCTTCCAGACCTTAGTGAAGCAGCTG  
 AGCAGGAAAAAGGGCTTCTTCTGAACTCTCCCAGCTATTGAGGAAGAAGAGTCAAAGAGTGGCTTAGA  
 TGTGATGCCTAATATTTCTGATGTGCTGCTGCGCAAACCTGCGGGTCCACAGGAGTCTCCCTGGAAGTGCC  
 CCTCCACTCACTGAAAAGGAAGTTGAGAAGCTGTTTGTGCAACTGTCTTGGCCTTTAGAAATGACAGCT  
 ACACTCTGGAATCTAGAATTAACCAAGGCTGAAAGGGAACCAACCTGACAGAGGAGAACACTGAGAAAGA  
 ACTGAAAACTTCAAAGCTTCCATTACGTCTCAGCTTCACTCTGGCACCCTGTGAGCACCGGAAACC  
 TACCAGAAGTTGCTGGAGGACATCGCTGTCTGCACCCGCTGGCTGCCCGCTCTCCAGCCGAGCTGAGG  
 TGGTAGGCGCCGTCGCCAGGAAAAGCGCATGTCGAAAGCAACGGAAGTATGATGCAGTATGTGGAGAA  
 TCTAAAGAGGACGATGAGAAGGACCATGCGGAGCTCATGGAGTTTAAAAAGCTTGCAATCAGAATTCA  
 AGCCGACGCTGTGGCCCTCTGAAGATGGGGTCCCTCGCACGGCACGGTCCATGTCCCTCACGCTGGGAA  
 AGAATATGCCTCGCCGGAGGGTCAGCGTTGCTGTGGTTCCTAAGTTTAAATGCCCTGAATCTGCCTGGCCA  
 AACTCCCAGCTCATCATCCATTCCCTCCTTACCAGCCTTGTGCGAATCACCAATGGGAAAGGCAGCCTA  
 CCTGTCACTTCAGCACTGCCTGCACTTTTGAAAAATGAAAGACAATGGGGACCCAGATTGTGAAGCCT  
 CTGCTCTGCGCTGACCCTGAGCTGCCTGGAGGAGCTTAGTCAGGAGACCAAGGCCAGGATGGAGGAAGA  
 AGCCTACAGCAAGGGATTCCAAGAAGGTCTAAAGAAGACCAAAGAACTTCAAGACCTGAAGGAGGAGGAG  
 GAAGAACAGAAGAGTGAAGTCTGAGGAACCTGAAGAGGTAGAAGAACTGAGGAAGAGGAAAAGGGCC  
 CAAGAAGCAGCAAACCTGAAGAATTGGTCCATTTCTTACAAGTCATGTATCCCAAACCTGTGCAGCACTG  
 GCAAGTGTATCGGATGATGGCTGCAGTGTGCTGGTCTTGACTGTTGTGCTGGGGCTCTACAATTCCTAT  
 AACTCTTGTGCAGAGCAGGCTGATGGGCCCTTGAAGATCCACTTGCTCGGCAGCCAGAGGGACTCCT  
 GGTGGAGCTCAGGACTCCAGCATGAGCAGCCTACAGAGCAG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG234519 representing NM\_001206881  
 Red=Cloning site Green=Tags(s)

MALNSPQPGPVESELGKQLLKTGWEGSPLPRSPQDAAGVGPASQGRGPAGEPMGPEAGSKAELPPTVS  
 RPPLLRLGLSWDSGPEEPGPRQLQVLAKLPLAEEERKRFAGKAGGLAKAPGLKDFQIQVQPVRMQLTKLR  
 EEHILMRNQLVGLKLPDLSEAAEQEKGLPSELSPAIEEEEKSKGLDVMPIISDVLLRKLRVHRSPLPGSA  
 PPLTEKEVENFVQLSLAFRNDYSYTLERINQAERERNLTEENTEKELNFKASITSSASLWHHCEHRET  
 YQKLLIEDIAVLHRLAARLSSRAEVVAVRQEKRMKATEVMMQYVENLKRTEYKDHAELEMEFKLANQNS  
 SRSCGPSEDGVPRTARSMSLTLGKNMPRRRVSVAVVPKFNALNLPQGTTPSSSSIPSLPALSESPNGKGS  
 PVTALPALLENGKTNGDPDCEASAPALTLSCLEELSQETKARMEEEAYSKGFQEGLEKTKELQDLKEEE  
 EEQKSESPEEPEVEETEEEEKGRSSKLEELVHFLQVMYPKLCQHWQVIWMAAVMLVLTVVLLGLYNSY  
 NSCAEQADGPLGRSTCSAAQRDSWSSQLQHEQPTEQ

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001206881

**ORF Size:** 1791 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:**

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:** [NM\\_001206881.2](#)

**RefSeq Size:** 6165 bp

**RefSeq ORF:** 1794 bp

**Locus ID:** 10335

**UniProt ID:** [Q9Y6F6](#)

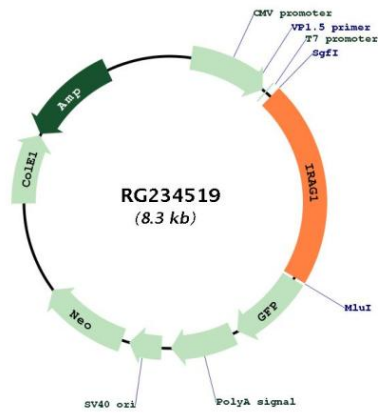
**Cytogenetics:** 11p15.4

**Protein Families:** Transmembrane

**Protein Pathways:** Vascular smooth muscle contraction

**Gene Summary:** This gene is similar to a putative mouse tumor suppressor gene (Mrvi1) that is frequently disrupted by mouse AIDS-related virus (MRV). The encoded protein, which is found in the membrane of the endoplasmic reticulum, is similar to Jaw1, a lymphoid-restricted protein whose expression is down-regulated during lymphoid differentiation. This protein is a substrate of cGMP-dependent kinase-1 (PKG1) that can function as a regulator of IP3-induced calcium release. Studies in mouse suggest that MRV integration at Mrvi1 induces myeloid leukemia by altering the expression of a gene important for myeloid cell growth and/or differentiation, and thus this gene may function as a myeloid leukemia tumor suppressor gene. Several alternatively spliced transcript variants encoding different isoforms have been found for this gene, and alternative translation start sites, including a non-AUG (CUG) start site, are used. [provided by RefSeq, May 2011]

**Product images:**



Circular map for RG234519