

Product datasheet for SC316790

IRAG1 (NM_001100167) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: IRAG1 (NM_001100167) Human Untagged Clone

Tag: Tag Free Symbol: IRAG1

Synonyms: IRAG; JAW1L; MRVI1

Vector: <u>pCMV6 series</u>

OriGene Technologies, Inc.

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Fully Sequenced ORF:

>NCBI ORF sequence for NM_001100167, the custom clone sequence may differ by one or more nucleotides

AAAACGGGCTGGGAGGCCCCTCTGCCGAGAAGTCCAACCCAGGATGCGGCAGGAGTG GGTCCCCCAGCCTCCCAGGGGAGAGGCCCAGCTGGAGAGCCGATGGGGCCCGAGGCTGGC TCCAAAGCTGAGCTTCCACCCACTGTGTCCCGGCCCCCGCTGCTGCGAGGGCTCTCCTGG GACAGTGGCCCTGAAGAACCTGGCCCCCGGCTGCAGAAAGTGCTTGCCAAGCTGCCACTG GCAGAGGAAGAAAAGCGTTTTGCAGGCAAGGCCGGCGGCAAGCTGGCCAAGGCCCCTGGT CTCAAAGACTTTCAGATACAAGTGCAGCCCGTGCGGATGCAGAAACTGACCAAGCTCCGA GAGGAGCACATCCTGATGAGAAATCAGAACTTAGTGGGGCTCAAGCTTCCAGACCTTAGT GAAGCAGCTGAGCAGGAAAAAGGGCTTCCTTCTGAACTCTCCCCAGCTATTGAGGAAGAA GAGTCAAAGAGTGGCTTAGATGTCATGCCTAATATTTCTGATGTGCTGCTGCGCAAACTG GTGTTTGTGCAACTGTCCTTGGCCTTTAGAAATGACAGCTACACTCTGGAATCTAGAATT TTCAAAGCTTCCATTACGTCCTCAGCTTCACTCTGGCACCACTGTGAGCACCGGGAAACC TACCAGAAGTTGCTGGAGGACATCGCTGTCCTGCACCGCCTGGCTGCCCGCCTCTCCAGC CGAGCTGAGGTGGTAGGCGCCGTCCGCCAGGAAAAGCGCATGTCGAAAGCAACGGAAGTG ATGATGCAGTATGTGGAGAATCTAAAGAGGACGTATGAGAAGGACCATGCGGAGCTCATG GAGTTTAAAAAGCTTGCAAATCAGAATTCAAGCCGCAGCTGTGGCCCCTCTGAAGATGGG GTCCCTCGCACGCCACGCTCCATGTCCCTCACGCTGGGAAAGAATATGCCTCGCCGGAGG GTCAGCGTTGCTGTGGTTCCTAAGTTTAATGCCCTGAATCTGCCTGGCCAAACTCCCAGC TCATCATCCATTCCCTCCTTACCAGCCTTGTCGGAATCACCCAATGGGAAAGGCAGCCTA CCTGTCACTTCAGCACTGCCTGCACTTTTGGAAAATGGAAAGACAAATGGGGACCCAGAT TGTGAAGCCTCTGCTCCTGCGCTGACCCTGAGCTGCCTGGAGGAGCTTAGTCAGGAGACC AAGGCCAGGATGGAGGAAGAAGCCTACAGCAAGGGATTCCAAGAAGGTCTAAAGAAGACC AAAGAACTTCAAGACCTGAAGGAGGAGGAGGAAGAACAGAAGAGTGAGAGTCCTGAGGAA CCTGAAGAGGTAGAAGAAACTGAGGAAGAGGGAAAAGGGCCCAAGAAGCAGCAAACTTGAA GAATTGGTCCATTTCTTACAAGTCATGTATCCCAAACTGTGTCAGCACTGGCAAGTGATC TGGATGATGGCTGCAGTGATGCTGGTCTTGACTGTTGTGCTGGGGCTCTACAATTCCTAT AACTCTTGTGCAGAGCAGGCTGATGGGCCCCTTGGAAGATCCACTTGCTCGGCAGCCCAG AGGGACTCCTGGTGGAGCTCAGGACTCCAGCATGAGCAGCCTACAGAGCAG

Restriction Sites: Please inquire ACCN: NM 001100167

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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: <u>NM 001100167.1</u>, <u>NP 001093637.1</u>

 RefSeq Size:
 6021 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]

Transcript Variant: This variant (4) differs in the 5' UTR, lacks a portion of the 5' coding region, and uses a downstream in-frame start codon, compared to variant 1. The encoded isoform (c) is shorter at the N-terminus, compared to isoform a. Both variants 4 and 6 encode the same isoform. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments. CCDS Note: This CCDS representation uses a downstream AUG start codon compared to CCDS44539.1. It is supported by the mRNA AK127209.1, which lacks the exon containing the alternative non-AUG (CUG) start codon described in PMID:10321731.