

## Product datasheet for **SC119566**

### Retinoic Acid Receptor alpha (RARA) (NM\_000964) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Retinoic Acid Receptor alpha (RARA) (NM_000964) Human Untagged Clone
Tag:	Tag Free
Symbol:	Retinoic Acid Receptor alpha
Synonyms:	NR1B1; RAR
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC119566 sequence for NM\_000964 edited (data generated by NextGen Sequencing)

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ATGGCCAGCAACAGCAGCTCCTGCCCGACACCTGGGGGCGGGCACCTCAATGGGTACCCG
GTGCTCCCTACGCCTTCTTCTTCCCCCTATGCTGGGTGGACTCTCCCCGCCAGGCGCT
CTGACCACTCTCCAGCACCAGCTTCCAGTTAGTGGATATAGCACACCATCCCCAGCCACC
ATTGAGACCCAGAGCAGCAGTTCTGAAGAGATAGTGCCAGCCCTCCCTCGCCACCCCTT
CTACCCCGCATCTACAAGCCTTGCTTTGTCTGTGTCAGGACAAGTCCCTCAGGCTACCACTAT
GGGGTCAGCGCCTGTGAGGGCTGCAAGGGCTTCTTCCGCCGAGCATCCAGAAGAACATG
GTGTACACGTGTACCCGGACAAGAAGTGCATCATCAACAAGGTGACCCGGAACCGCTGC
CAGTACTGCCGACTGCAGAAAGTCTTTGAAGTGGGCATGTCCAAGGAGTCTGTGAGAAAC
GACCGAAACAAGAAGAAGAAGGAGGTGCCCAAGCCGAGTGTCTGAGAGCTACACGCTG
ACGCCGGAGGTGGGGGAGCTCATTGAGAAGGTGCGCAAAGCGCACCAGGAAACCTTCCCT
GCCCTCTGCCAGTGGGCAAATACACTACGAACAACAGCTCAGAACAACGTGTCTCTCTG
GACATTGACCTCTGGGACAAGTTCAGTGAAGTCTCCACCAAGTGCATCATTAAAGACTGTG
GAGTTCGCCAAGCAGCTGCCCGCTTACCACCCTCACCATCGCCGACCAGATCACCCCTC
CTCAAGGCTGCCTGCCTGGACATCCTGATCCTGCGGATCTGCACGCGGTACACGCCCGAG
CAGGACACCATGACCTTCTCGGACGGGTGACCCTGAACCGGACCAGATGCACAACGCT
GGCTTCGGCCCCCTACCGACCTGGTCTTTGCCTTCGCCAACCAGCTGCTGCCCTGGAG
ATGGATGATGCGGAGACGGGGTGTCTCAGCGCCATCTGCCTCATCTGCGGAGACCGCCAG
GACCTGGAGCAGCCGGACCGGGTGGACATGCTGCAGGAGCCGCTGCTGGAGGCGCTAAAG
GTCTACGTGCGGAAGCGGAGGCCAGCCGCCCCACATGTTCCCAAGATGCTAATGAAG
ATTACTGACCTGCGAAGCATCAGCGCCAAGGGGGTGTGAGCGGGTGTACGCTGAAGATG
GAGATCCCGGGCTCCATGCCGCTCTCATCCAGGAAATGTTGGAGAACTCAGAGGGCTG
GACACTGTGAGCGGACAGCCGGNNNNNNNNNNNGGANGGGGTGGCCTGGCCCCCCC
CCAGGCAGCTGTAGCCCCAGCCTCAGCCCCAGCTCCAACAGAAGCAGCCCGCCACCCAC
TCCCCGTGA
    
```

Clone variation with respect to NM\_000964.3

1284 g=>n;1285 g=>n;1286 g=>n;1287 t=>n;1288 g=>n;1289 g=>n;1290 g=>n;1291 g=>n;1292 g=>n;1293 g=>n;1294 c=>n;1295 g=>n;1299 c=>n

**5' Read Nucleotide Sequence:**

```

>OriGene 5' read for NM_000964 unedited
NNCCATGTTTANTATTTGTAAACGACTCATATAGGCGGCCGGAATCGCACGGGCATAAC
AGGGGGAATCCTGAATCGGCTGAGAGGCTTCCCCGGTTCTCTGGGTAAACCCATCGGCC
CCCTGCCAGCACACCTGAGCAGCATCACAGGACATGGCCCCCTCAGCCACCGTAGCTG
GGGACCACATCTAGGAAGATGGACGATCCTTTTTGTGGTGACCCTGGAAGGGCCAGCCTC
TGAGACCTTGCCAGGTAAGGTGACGCTCACAGAAGTGTGACCAAGGACCGGCTC
TTGAGACATCCCCAACCACCTGGCCCCAGCTAGGGTGGGGGTCCAGGAGACTGAGA
TTAGCCTGCCCTCTTTGACAGCAGCTCCAGGACAGGGCGGGTGGGCTGACCACCCAAAC
CCCATCTGGGCCAGGCCCATGCCCGAGGAGGGTGGTCTGAAGCCCACAGAGCCCC
CTGCCAGACTGTCTGCCTCCCTTCTGACTGTGGCCGCTTGGCATGGCCAGCAACAGCAGC
TCCTGCCGACACCTGGGGGCGGGCACCTCAATGGGTACCCGGTGCCTCCCTACGCCTTC
TTCTTCCCCCTATGCTGGGTGGACTCTCCCCGCCAGGCGCTCTGACCACTCTCCAGCAC
CAGCTTCCAGTTAGTGGATATAGCACACCATCCCAGCCACCATTGAGACCCAGAGCAGC
AGTTCTGAAGAGATAGTCCCAGCCCTCCCTCGCCACCCCTCTACCCCGCATCTACAAG
CCTTGCTTTGTCTGTGTCAGGACAAGTCCCTCAGGCTACCACTATGGGTTTCAGCGCCTTTGA
GGTGCAGGGCTTCTTTCGCCGAGCATCCAGAAGACATGGTGTACACGTGTACCCGG
    
```

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_000964 unedited NGCAGTAGGTGTAATTTTCTATATTTAAATCAAAACAAAAACATAAAATAAAAACAAA CCAGCGAGAATTAATACCTGGGGTTGGTATGGCAGGGTATGTACAGGGGAACCCCCGC CCCTGTCCCACCCCTCTGTACCAACCGAGGCAGGGGGAGGTTGAGGTTCCCCAGCTG GGGAGCAATGGCTTGTGAGTTCTGAGGATGGGGAGCCAAGTCTGGCGTTTGTGGTGA TGAAGATGTGGTGAAGTGGGAGGGGTGTCTTGTATGAACACGAGGCCCCAGGACCA TCCTGAGACCCAGGACCAGGGGCTCACTCAGTTCTGGCCTCGGCCTCTGACGTCAGCC CATGCTGTGGGAGCAGGCAGTCCACTGAGGGCCAGGCCTCTGTCCAAGGAGTCGATGCC TCCTCCCTCCCCGTCAGGGAAGGTCCCCAGTACTGCCGGAAGGGCAGGTGGGGG AGGGCTGGTGGGGTTACACGGTTCGGTAGAAAGGCACAAAAAGCCGGGGCGGACGGC GAGGCCTGTGTCATGCTGCCTGGACGCACACGCGGAGTGGGTGTCGAGCTGTTTAC GTTGTACCTTGTCTCACGTTGTTTCAACTCATGCCCCGCTCCCATTTCCCTATCCCC TCCCTCCCCCTTCGCCCTCTGTCCCCTCGCGTATTCTCCCTCCTACGCCGCCGC CTCACTGCTCATCTATTTGTGACTTATCTGTCCGACTTACCTCCGTACCCTCCAATA TCTTTAACCTTCTTTATCTCGTAAGTATCTACCGCCAGATCTCCTTTACCTCCC CCGTCACTTTTTGTCCTTTCTTTCCGCTTGACCCCTTGTCTTCCACGTATCCCGATCT CATTTGCTTTTCCCGATTACTTCTCCCCCTT
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_000964
<b>Insert Size:</b>	2600 bp
<b>OTI Disclaimer:</b>	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).
<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><a href="#">NM_000964.1</a></u> , <u><a href="#">NP_000955.1</a></u>
<b>RefSeq Size:</b>	2907 bp
<b>RefSeq ORF:</b>	1389 bp
<b>Locus ID:</b>	5914
<b>UniProt ID:</b>	<u><a href="#">P10276</a></u>
<b>Cytogenetics:</b>	17q21.2
<b>Protein Families:</b>	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors
<b>Protein Pathways:</b>	Acute myeloid leukemia, Pathways in cancer

**Gene Summary:**

This gene represents a nuclear retinoic acid receptor. The encoded protein, retinoic acid receptor alpha, regulates transcription in a ligand-dependent manner. This gene has been implicated in regulation of development, differentiation, apoptosis, granulopoiesis, and transcription of clock genes. Translocations between this locus and several other loci have been associated with acute promyelocytic leukemia. Alternatively spliced transcript variants have been found for this locus.[provided by RefSeq, Sep 2010]

Transcript Variant: This variant (1) encodes the longest protein (isoform 1). Variants 1 and 3 encode the same isoform (1).