

## Product datasheet for **SC308255**

### Estrogen Related Receptor gamma (ESRRG) (NM\_206594) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Estrogen Related Receptor gamma (ESRRG) (NM_206594) Human Untagged Clone
Tag:	Tag Free
Symbol:	Estrogen Related Receptor gamma
Synonyms:	ERR-gamma; ERR3; ERRg; ERRgamma; NR3B3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC308255 representing NM_206594. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG  
GATCCGGTACCGAGGAGATCTGCCGCC**CGGATCGCC**  
ATGTCAAACAAGATCGACACATTGATTCCAGCTGTTCTGTCCTTCATCAAGACGGAACCTTCAGCCCA  
GCCTCCCTGACGGACAGCGTCAACCACCACAGCCCTGGTGGCTCTTCAGACGCCAGTGGGAGCTACAGT  
TCAACCATGAATGGCCATCAGAACGGACTTGACTCGCCACCTCTCTACCCTTCTGCTCCTATCCTGGGA  
GGTAGTGGGCTGTCAGGAACTGTATGATGACTGCTCCAGCACCATTGTTGAAGATCCCAGACCAAG  
TGTGAATACATGCTCACTCGATGCCAAGAGACTGTGTTTAGTGTGTGGTGACATCGCTTCTGGGTAC  
CACTATGGGGTAGCATCATGTGAAGCCTGCAAGGCATTCTTCAAGAGGACAATTCAAGGCAATATAGAA  
TACAGCTGCCCTGCCACGAATGAATGTGAAATCACAAGCGCAGACGTAATCCTGCCAGGCTTGCCGC  
TTCATGAAGTGTTTAAAGTGGGCATGCTGAAAGAAGGGTGCGTCTTGACAGAGTACGTGGAGGTGCG  
CAGAAGTACAAGCGCAGGATAGATGCGGAGAACAGCCCATACCTGAACCTCAGCTGGTTCAGCCAGCC  
AAAAAGCCATATAACAAGATTGTCTCACATTTGTTGGTGGCTGAACCGGAGAAGATCTATGCCATGCCT  
GACCCTACTGTCCCGACAGTGACATCAAAGCCCTCACTACACTGTGTGACTTGGCCGACCAGAGTTG  
GTGGTTATCATTGGATGGGCGAAGCATATTCCAGGCTTCTCCAGCTGTCCCTGGCGGACCAGATGAGC  
CTTCTGCAGAGTGCTTGGATGGAATTTTGATCCTTGGTGTGATACCGGTCTTTTCGTTTGAGGAT  
GAACCTGTCTATGCAGACGATTATATAATGGACGAAGACCAGTCCAAATTAGCAGGCCTTCTGATCTA  
AATAATGCTATCCTGCAGCTGGTAAAGAAATACAAGAGCATGAAGCTGGAAAAAGAAATTTGTCAAC  
CTCAAAGCTATAGCTCTTGCTAATTCAGACTCCATGCACATAGAAGATGTTGAAGCCGTTCAGAAGCTT  
CAGGATGTCTTACATGAAGCGCTGCAGGATTATGAAGCTGGCCAGCACATGGAAGACCCTCGTCGAGCT  
GGCAAGATGCTGATGACACTGCCACTCCTGAGGCAGACCTCTACCAAGGCCGTGCAGCATTTCTACAAC  
ATCAAAGTAGAAGGCAAAGTCCCAATGCACAACTTTTTTGGAAATGTTGGAGGCCAAGGTC**TGA**  
**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT  
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC



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<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_206594
<b>Insert Size:</b>	1308 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>OTI Annotation:</b>	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.
<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_206594.2</a></u>
<b>RefSeq Size:</b>	5380 bp
<b>RefSeq ORF:</b>	1308 bp
<b>Locus ID:</b>	2104
<b>UniProt ID:</b>	<u><a href="#">P62508</a></u>
<b>Cytogenetics:</b>	1q41
<b>Protein Families:</b>	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors
<b>MW:</b>	48.6 kDa

**Gene Summary:**

This gene encodes a member of the estrogen receptor-related receptor (ESRR) family, which belongs to the nuclear hormone receptor superfamily. All members of the ESRR family share an almost identical DNA binding domain, which is composed of two C4-type zinc finger motifs. The ESRR members are orphan nuclear receptors; they bind to the estrogen response element and steroidogenic factor 1 response element, and activate genes controlled by both response elements in the absence of any ligands. The ESRR family is closely related to the estrogen receptor (ER) family. They share target genes, co-regulators and promoters, and by targeting the same set of genes, the ESRRs seem to interfere with the ER-mediated estrogen response in various ways. It has been reported that the family member encoded by this gene functions as a transcriptional activator of DNA cytosine-5-methyltransferases 1 (Dnmt1) expression by direct binding to its response elements in the DNMT1 promoters, modulates cell proliferation and estrogen signaling in breast cancer, and negatively regulates bone morphogenetic protein 2-induced osteoblast differentiation and bone formation. Multiple alternatively spliced transcript variants have been identified, which mainly differ at the 5' end and some of which encode protein isoforms differing in the N-terminal region. [provided by RefSeq, Aug 2011]

Transcript Variant: This variant (2) lacks the 5' exon but has three alternate 5' exons and uses a downstream AUG start codon, compared to variant 1. The resulting isoform (2) is shorter at the N-terminus, compared to isoform 1. Variants 2-4, 9-15, and 17-21 encode the same isoform.