

## Product datasheet for RC232648

### Estrogen Related Receptor gamma (ESRRG) (NM\_001243507) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Estrogen Related Receptor gamma (ESRRG) (NM_001243507) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ESRRG
Synonyms:	ERR-gamma; ERR3; ERRg; ERRgamma; NR3B3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC232648 representing NM_001243507 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCAAACAAAGATCGACACATTGATTCCAGCTGTTTCGTCCTTCATCAAGACGGAACCTTCCAGCCCAG  
CCTCCCTGACGGACAGCGTCAACCACCACAGCCCTGGTGGCTCTTCAGACGCCAGTGGGAGCTACAGTTC  
AACCATGAATGGCCATCAGAACGGACTTGACTCGCCACCTCTCTACCCTTCTGCTCTATCTGGGAGGT  
AGTGGCCTGTCAGGAACTGTATGATGACTGCTCCAGCACCATTTGTTGAAGATCCCAGACCAAGTGTG  
AATACATGCTCAACTCGATGCCAAGAGACTGTGTTTAGTGTGTGGTGACATCGTTCTGGGTACCACTA  
TGGGGTAGCATCATGTGAAGCCTGCAAGGCATTCTTCAAGAGGACAATTCAAGGGGTGCGTCTTGACAGA  
GTACGTGGAGGTGCGCAGAAGTACAAGCGCAGGATAGATGCGGAGAACAGCCCATACCTGAACCCTCAGC  
TGGTTCAGCCAGCCAAAAGCCATATAACAAGATTGTCTCACATTTGTTGGTGGCTGAACCGGAGAAGAT  
CTATGCCATGCCTGACCCTACTGTCCCCGACAGTGACATCAAAGCCCTCACTACACTGTGTGACTTGGCC  
GACCGAGAGTTGGTGGTTATCATTGGATGGCGAAGCATATCCAGGCTTCTCCACGCTGTCCCTGGCGG  
ACCAGATGAGCCTTCTGCAGAGTGTGGATGGAATTTGATCCTTGGTGTGATACCCGGTCTCTTTTC  
GTTTGAGGATGAACCTGTCTATGCAGACGATTATATAATGGACGAAGACCAGTCCAAATTAGCAGGCCCT  
CTTGATCTAAATAATGCTATCCTGCAGCTGGTAAAGAAATACAAGAGCATGAAGCTGGAAAAAGAAGAT  
TTGTCACCCTCAAAGCTATAGCTCTTGCTAATTCAGACTCCATGCACATAGAAGATGTTGAAGCCGTTCA  
GAAGCTTCAGGATGTCTTACATGAAGCGCTGCAGGATTATGAAGCTGGCCAGCACATGGAAGACCCTCGT  
CGAGCTGGCAAGATGCTGATGACACTGCCACTCCTGAGGCAGACCTCTACCAAGGCCGTGCAGCATTTCT  
ACAACATCAAAGTGAAGGCAAAGTCCCAATGCACAACTTTTTTTGGAAATGTTGGAGGCCAAGGTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC232648 representing NM\_001243507  
 Red=Cloning site Green=Tags(s)

MSNKDRHIDSSCSSFIKTEPSSPASLTDSVNHHSPPGGSSDASGSYSSTMNGHQGLDSPPLYPSAPILGG  
 SGPVVRKLYDDCSSTIVEDPQTKCEYMLNSMPKRLCLVCGDIASGYHYGVASCEACKAFFKRTIQGVRLDR  
 VRGGRQKYKRRIDAENSPYLNQQLVQPAKKPYNKIVSHLLVAEPEKIYAMPDPTVPDSDIKALTTLCDLA  
 DRELVVIIGWAKHIPGFSTLSLADQMSLLQSAWMEILILGVVYRSLSFEDELVYADDYIMDEDQSKLAGL  
 LDLNNAIQLVKYKYSMKLEKEEFVTLKAIALANSDSMHIEDVEAVQKLQDVLHEALQDYEAGQHMEDPR  
 RAGKMLMTLPLLRQTSTKAVQHFYNIKLEGVPMHKLFLMLEAKV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

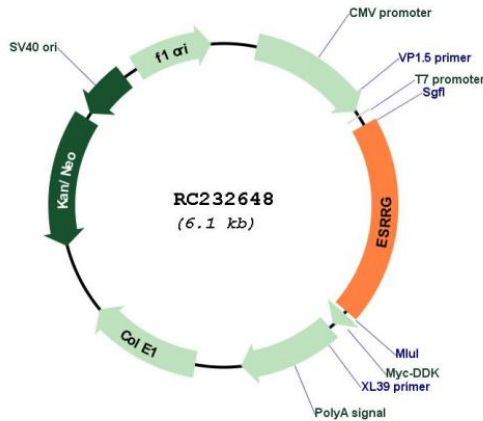
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001243507

<b>ORF Size:</b>	1188 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	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>RefSeq:</b>	<a href="#">NM_001243507.2</a>
<b>RefSeq Size:</b>	5623 bp
<b>RefSeq ORF:</b>	1191 bp
<b>Locus ID:</b>	2104
<b>UniProt ID:</b>	<a href="#">P62508</a>
<b>Cytogenetics:</b>	1q41
<b>Protein Families:</b>	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors
<b>MW:</b>	44.5 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]