

Product datasheet for **RG232802**

Estrogen Related Receptor gamma (ESRRG) (NM_001243518) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Estrogen Related Receptor gamma (ESRRG) (NM_001243518) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ESRRG
Synonyms:	ERR-gamma; ERR3; ERRg; ERRgamma; NR3B3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG232802 representing NM_001243518
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTGGCGAGAATGTGATTGGGGTCTTGGAGCAGTCAAGTCTGATCTGGCCTGTGTTCCCTCAGCTAAAA
 GGCTTCTCTGCAGAATGTCAAACAAAGATCGACACATTGATTCCAGCTGTTTCGTCCTTCATCAAGACGGA
 ACCTTCCAGCCCAGCCTCCCTGACGCGACAGCGTCAACCACCACAGCCCTGGTGGCTCTTCAGACGCCAGT
 GGGAGCTACAGTTC AACCATGAATGGCCATCAGAACGGACTTGACTCGCCACCTCTCTACCTTCTGCTC
 CTATCCTGGGAGGTAGTGGGCTGTGAGAACTGTATGATGACTGCTCCAGCACCATTGTTGAAGATCC
 CCAGACCAAGTGTGAATACATGCTCAACTCGATGCCAAGAGACTGTGTTTAGTGTGTGGTGACATCGCT
 TCTGGGTACCACTATGGGGTAGCATCATGTGAAGCCTGCAAGGCATTCTCAAGAGGACAATTCAAGGCA
 ATATAGAATACAGCTGCCCTGCCAGGAATGAATGTGAAATCACAAAGCGCAGACGTAATCCTGCCAGGC
 TTGCCGCTTCATGAAGTGTAAAAGTGGGCATGCTGAAAGAAGGGGTGCGTCTTGACAGAGTACGTGGA
 GGTCGGCAGAAGTACAAGCGCAGGATAGATGCGGAGAACAGCCATACCTGAACCCCTCAGCTGGTTCAAGC
 CAGCCAAAAGCCATTGCTCTGGTCTGATCCTGCAGATAACAAGATTGTCTCACATTTGTTGGTGGCTGA
 ACCGGAGAAGATCTATGCCATGCCTGACCTACTGTCCCCGACAGTGACATCAAAGCCCTCACTACACTG
 TGTGACTTGGCCGACCGAGAGTTGGTGGTTATCATTGGATGGGCGAAGCATATCCAGGCTTCTCCACGC
 TGTCCCTGGCGGACCAGATGAGCCTTCTGCAGAGTGTGGATGGAAATTTTGATCCTTGGTGTGCTATA
 CCGGTCTCTTCGTTTGGAGTGAACCTGTCTATGCAGACGATTATATAATGGACGAAGACCAGTCCAAA
 TTAGCAGCCTTCTTGATCTAAATAATGCTATCCTGCAGCTGGTAAAGAAATAACAAGAGCATGAAGCTGG
 AAAAGAAGAATTTGTCAACCCTCAAAGCTATAGCTCTTGCTAATTCAGACTCCATGCACATAGAAGATGT
 TGAAGCCGTTTCAAGCTTCAGGATGTCTTACATGAAGCGCTGCAGGATTATGAAGCTGGCCAGCACATG
 GAAGACCCCTCGTCGAGCTGGCAAGATGCTGATGACACTGCCACTCCTGAGGCAGACCTCTACCAAGGCCG
 TGCAGCATTTCTACAACATCAAACCTAGAAGGCAAAGTCCCAATGCACAAACTTTTTTTGAAATGTTGGA
 GGCCAAGGTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG232802 representing NM_001243518
 Red=Cloning site Green=Tags(s)

MWRECDWGLGAVKSDLACVPSAKRLLCRMSNKDRHIDSSCSSFIKTEPSSPASLTDVSNHHSPPGSSDAS
 GSYSSTMNGHQGLDSPPLYPSAPILGGSGPVRKLYDDCSSTIVEDPQTKCEYMLNSMPKRLCLVCGDIA
 SGYHYGVASCEACKAFFKRTIQGNI EYSCPATNECEITKRRRKSCQACRFMKCLKVGM LKEGVRLDRVRG
 GRQKYKRRIDAENSPYLNQPLVQPAKKPLLWSDPADNKIVSHLLVAEPEKIYAMPDPTVPDSIDIKALTTL
 CDLADRELVVIIIGWAKHIPGFSTLSLADQMSLLQSAWMEILILGVVYRSLSFEDEL VYADDYIMDEDQSK
 LAGLLDLNNAIILQLVKKYKSMKLEKEEFVTLKAIALANSDSMHIEDVEAVQKLQDVLHEALQDY EAGQHM
 EDPRRAGKMLMTLPLLRQTSTKAVQHFYNIKLEKGVPMHKL FLEMLEAKV

TRTRPLE - GFP Tag - V

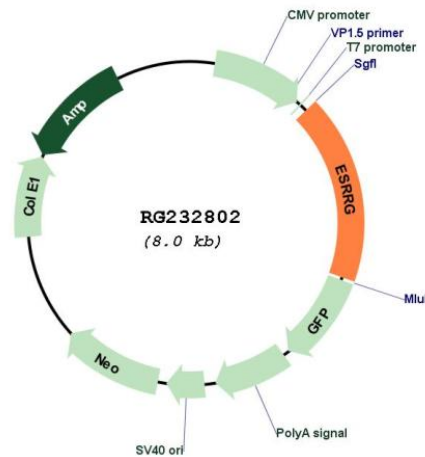
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001243518

ORF Size: 1410 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_001243518.2](#)

RefSeq Size: 5409 bp

RefSeq ORF: 1413 bp

Locus ID: 2104

UniProt ID: [P62508](#)

Cytogenetics: 1q41

Protein Families: Druggable Genome, Nuclear Hormone Receptor, Transcription Factors

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]