

## Product datasheet for **RG239037**

### Estrogen Receptor 1 (ESR1) (NM\_001291230) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Estrogen Receptor 1 (ESR1) (NM_001291230) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ESR1
Synonyms:	ER; Era; ESR; ESRA; ESTRR; NR3A1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG239037 representing NM\_001291230.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGACCATGACCCTCCACACCAAAGCATCTGGGATGGCCCTACTGCATCAGATCCAAGGGAACGAGCTG
GAGCCCTGAACCGTCCGACGCTCAAGATCCCCCTGGAGCGGCCCTGGGCGAGGTGTACCTGGACAGC
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GCGCAGGTCTACGGTACAGCCGGCTCCCTACGGCCCCGGGTCTGAGGCTGCGGCGTTCGGCTCCAAC
GGCTGGGGGTTTCCCCCACTCAACAGCGTGTCTCCGAGCCGCTGATGCTACTGCACCCGCCCGC
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TACACGGTGCAGGAGGCCCGCCCGGCATTCTACAGGCCAAATTCAGATAATCGACGCCAGGGTGGC
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ATTGATAAAAACAGGAGGAAGAGCTGCCAGGCCTGCCGGCTCCGCAATGCTACGAAGTGGGAATGATG
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ATGAAGTGAAGAACGTGGTGGCCCTCTATGACCTGCTGCTGGAGATGCTGGACGCCACCCTACAT
GCGCCACTAGCCGTGGAGGGGCATCCGTGGAGGAGACGGACCAAGCCACTGGCCACTGCGGGCTCT
ACTTCATCGATTCTTTGAAAAGTATTACATCACGGGGGAGGCAGAGGGTTTCCCTGCCACGGT
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

**Protein Sequence:**

>Peptide sequence encoded by RG239037  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MTMTLHTKASGMALLHQIQNELEPLNRPQLKIPLERPLGEVYLDSSKPAVYNYPEGAAYEFNAAAAAN
AQVYQGTLPYGPGSEAAAFGSNGLGGFPPLNSVSPSPLMLLHPPPQLSPFLQPHGQQVPPYLENEPSG
YTVREAGPPAFYRPNSDNRQGGRERLASTNDKGSMAESAKETRYCAVCNDYASGYHYGVWSCEGCKA
FFKRSIQGNRHNDYMCPTNQCTIDKNRRKSCQACRLRKYEVGMMKGGIRKDRRGGRLKHKRQRDDG
EGRGEVGSAGDMRAANLWPSPLMIKRSKNSLALSLTADQMVSAALLDAEPPILYSEYDPTTRPFSEASMM
GLLTNLADRELVHMINWAKRVPGFVDLTLHDQVHLLCAWLEILMIGLVWRSMHPGKLLFAPNLLDR
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ITDTL IHLMAKAGLTLQQHQRLAQLLLILSHIRHMSNKGMEHLYSMKCKNVVPLYDLLLEMLDAHRLH
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TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
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```

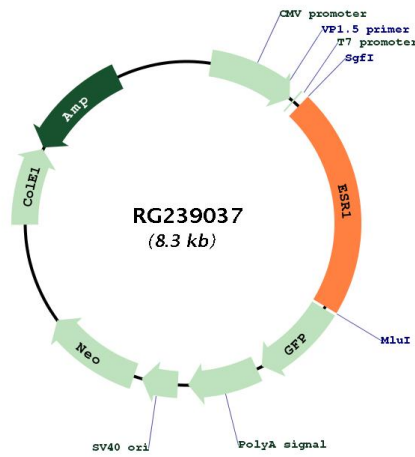
**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001291230

ORF Size: 1791 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>RefSeq:</b>	<a href="#">NM_001291230.1</a> , <a href="#">NP_001278159.1</a>
<b>RefSeq Size:</b>	6320 bp
<b>RefSeq ORF:</b>	1794 bp
<b>Locus ID:</b>	2099
<b>UniProt ID:</b>	<a href="#">P03372</a>
<b>Cytogenetics:</b>	6q25.1-q25.2
<b>Protein Families:</b>	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors
<b>MW:</b>	66.9 kDa
<b>Gene Summary:</b>	This gene encodes an estrogen receptor and ligand-activated transcription factor. The canonical protein contains an N-terminal ligand-independent transactivation domain, a central DNA binding domain, a hinge domain, and a C-terminal ligand-dependent transactivation domain. The protein localizes to the nucleus where it may form either a homodimer or a heterodimer with estrogen receptor 2. The protein encoded by this gene regulates the transcription of many estrogen-inducible genes that play a role in growth, metabolism, sexual development, gestation, and other reproductive functions and is expressed in many non-reproductive tissues. The receptor encoded by this gene plays a key role in breast cancer, endometrial cancer, and osteoporosis. This gene is reported to have dozens of transcript variants due to the use of alternate promoters and alternative splicing, however, the full-length nature of many of these variants remain uncertain. [provided by RefSeq, Jul 2020]