

## Product datasheet for **RC239037**

### 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:	Myc-DDK
Symbol:	ESR1
Synonyms:	ER; Era; ESR; ESRA; ESTRR; NR3A1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RC239037 representing NM\_001291230  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGACCATGACCCTCCACACAAAGCATCTGGGATGGCCCTACTGCATCAGATCCAAGGGAACGAGCTGG  
 AGCCCCTGAACCGTCCGAGCTCAAGATCCCCCTGGAGCGGCCCTGGGCGAGGTGTACCTGGACAGCAG  
 CAAGCCC GCCGTGTACAACCTACCCGAGGGCGCCGCTACGAGTTCAACGCCGCGCCGCCCAACCGC  
 CAGGTCTACGGTCAGACCGGCTCCCTACGGCCCCGGTCTGAGGCTGCGGCGTTCCGGCTCCAACGGCC  
 TGGGGGTTTTCCCCCACTCAACAGCGTGTCTCCGAGCCCGTGTACTGACCCCGCCGCCGAGCT  
 GTCGCCTTCTGCAGCCCCACGGCCAGCAGGTGCCCTACTACCTGGAGAACGAGCCAGCGGCTACACG  
 GTGCGCGAGGCGGCCGCCGGCATTCTACAGGCCAAATTCAGATAATCGACGCCAGGTTGCCAGAGAAA  
 GATTGGCCAGTACCAATGACAAGGGAAGTATGGCTATGGAATCTGCCAAGGAGACTCGCTACTGTGCAGT  
 GTGCAATGACTATGCTTACAGGCTACCATTATGGAGTCTGGTCTGTGAGGGCTGCAAGGCCTTCTCAAG  
 AGAAGTATTCAAGGTAATAGACATAACGACTATATGTGTCCAGCCACCAACAGTGCACCATTGATAAAA  
 ACAGGAGGAAGAGCTGCCAGGCCTGCCGGCTCCGCAAATGCTACGAAGTGGGAATGATGAAAGTGGGAT  
 ACGAAAAGACCGAAGAGGAGGAGAATGTTGAAACACAAGCGCCAGAGAGATGATGGGGAGGGCAGGGGT  
 GAAGTGGGGTCTGCTGGAGACATGAGAGCTGCCAACCTTTGGCCAAGCCCGCTCATGATCAAACGCTCTA  
 AGAAGAACAGCCTGGCCTTGTCCCTGACGGCCGACAGATGGTCAAGTGCCTTGTGGATGCTGAGCCCC  
 CATACTCTATCCGAGTATGATCCTACCAGACCCTTCAAGTGAAGCTTCGATGATGGGCTTACTGACCAAC  
 CTGGCAGACAGGAGCTGGTTCACATGATCAACTGGGCGAAGAGGGTCCAGGCTTGTGGATTGACCC  
 TCCATGATCAGGTCCACCTTCTAGAATGTCCCTGGCTAGAGATCCTGATGATTGGTCTCGTCTGGCCTC  
 CATGGAGCACCCAGGGAAGCTACTGTTTGTCTCTAACTTGTCTTGGACAGGAACCAAGGAAAATGTGTA  
 GAGGGCATGGTGGAGATCTTCGACATGCTGCTGGCTACATCATCTCGTTCCGCATGATGAATCTGCAGG  
 GAGAGGAGTTTGTGCTCAAATCTATTATTTGCTTAATTCTGGAGTGTACACATTTCTGTCCAGCAC  
 CCTGAAGTCTCTGGAAGAGAAGGACCATATCCACCGAGTCTGGACAAGATCACAGACACTTTGATCCAC  
 CTGATGGCCAAGGAGGCTGACCCTGCAGCAGCAGCACCAGCGGCTGGCCAGCTCCTCCTCATCTCT  
 CCCACATCAGGCACATGAGTAACAAAGGCATGGAGCATCTGTACAGCATGAAGTGAAGAACGTGGTGGC  
 CCTCTATGACCTGCTGCTGGAGATGCTGGACGCCACCGCTACATGCGCCCACTAGCCGTGGAGGGGCA  
 TCCGTGGAGGAGACGACCAAGCCACTTGGCCACTGCGGGCTCTACTTCATCGCATTCTTGCAAAAGT  
 ATTACATCACGGGGAGGAGAGGGTTCCCTGCCACGGTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC239037 representing NM\_001291230  
 Red=Cloning site Green=Tags(s)

MTMTLHTKASGMALLHQIQNELEPLNRPQLKIPLERPLGEVYLDSSKPAVYNYPEGAAYEFNAAAAANA  
 QVYQGTGLPYGPGSEAAAFGSNGLGGFPPLNSVSPSPLMLLHPPPQLSPFLQPHGQVPPYYLENEPSGYT  
 VREAGPPAFYRPNNSNRRQGGRELRASNDKGSMAESAKETRYCAVCNDYASGYHYGVWSCEGCKAFFK  
 RSIQGNRHNDYMCPTNQCTIDKNRRKSCQACRLRKCYEVMKGGIRKDRRGGRLKHKRQRDDGEGRG  
 EVGSAGDMRAANLWPSPLMIKRSKKNLALSLTADQMVSALLDAEPPILYSEYDPTPRPFSEASMMGLL TN  
 LADRELVHMINWAKRVPGFVDLTLHDQVHLLCAWLEILMIGLVWRSMHPGKLLFAPNLLLDRNQKCV  
 EGMVEIFDMLLATSSRFMMNLQGEFVCLKSII LLNSGVYTFLLSSTLKSLEEKDHIHRVLDKITDITLIH  
 LMAKAGLTLQQHQRLAQLLLILSHIRHMSNKGMEHLYSMCKKNVPLYDLLLLLEMLDAHRLHAPTSRGA  
 SVEETDQSHLATAGSTSSHSLQKYYITGEAEGFPATV

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

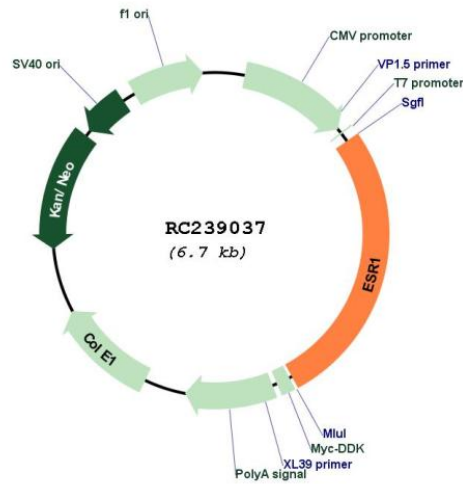
## Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

## 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>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_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]