

## Product datasheet for **RC232823**

### Estrogen Receptor beta (ESR2) (NM\_001214902) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Estrogen Receptor beta (ESR2) (NM_001214902) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ESR2
Synonyms:	ER-BETA; Erb; ESR-BETA; ESRB; ESTRB; NR3A2; ODG8
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RC232823 representing NM\_001214902  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGATATAAAAACTCACCATCTAGCCTTAATTCCTCTCCTACAACCTGCAGTCAATCCATCTTAC  
 CCCTGGAGCACGGCTCCATATACATACCTTCTCTATGTAGACAGCCACCATGAATATCCAGCCATGAC  
 ATTCTATAGCCCTGCTGTGATGAATTACAGCATTCCCAGCAATGCACTAACTTGGAAAGGTGGCCCTGGT  
 CGGCAGACCACAAGCCAAATGTGTTGTGGCCAACACCTGGGCACCTTTCTCCTTTAGTGGTCCATCGCC  
 AGTTATCACATCTGTATGCGGAACCTCAAAGAGTCCCTGGTGTGAAGCAAGATCGCTAGAACACACCTT  
 ACCTGTAAACAGAGAGACTGAAAAGGAAGGTTAGTGGGAACCGTTGCGCCAGCCCTGTTACTGGTCCA  
 GGTTCAAAGAGGGATGCTCACTTCTGCGCTGTCTGCAGCATTACGCATCGGGATACACTATGGAGTCT  
 GGTCTGTGAAGGATGTAAGGCCTTTTTAAAAGAAGCATTCAAGGACATAATGATTATATTTGTCACG  
 TACAAATCAGTGTACAATCGATAAAAACCGGCGCAAGAGCTGCCAGGCCCTGCCACTTCGGAAGTGTAC  
 GAAGTGGGAATGGTGAAGTGTGGCTCCCGGAGAGAGAGATGTGGGTACCGCCTTGTGCGGAGACAGAGAA  
 GTGCCGACGAGCAGCTGCACTGTGCCGGCAAGGCCAAGAGAAGTGGCGGCCACCGCCCGAGTGGGGGA  
 GCTGCTGCTGGACGCCCTGAGCCCCGAGCAGCTAGTGCTCACCCCTCTGGAGGCTGAGCCGCCCATGTG  
 CTGATCAGCCGCCCAGTGCGCCCTTACCAGGCCTCCATGATGATGTCCTGACCAAGTTGGCCGACA  
 AGGAGTTGGTACACATGATCAGCTGGGCCAAGAAGATCCCGGCTTTGTGGAGCTCAGCCTGTTGACCA  
 AGTGGCGCTCTTGAGAGCTGTTGGATGGAGGTGTTAATGATGGGGCTGATGTGGCGTCAATTGACCAC  
 CCCGGCAAGCTCATCTTTGCTCCAGATCTGTTCTGGACAGGGATGAGGGGAAATGCGTAGAAGGAATTC  
 TGGAAATCTTTGACATGCTCTGCAACTACTTCAAGTTTCGAGAGTTAAAACCAACACAAAAGATA  
 TCTCTGTGTCAGGCCATGATCCTGCTCAATCCAGTATGTACCCTCTGGTACAGCGACCCAGGATGCT  
 GACAGCAGCCGGAAGCTGGCTCACTTGCTGAACGCCGTGACCGATGCTTTGGTTTGGGTGATTGCCAAGA  
 GCGGCATCTCTCCAGCAGCAATCCATGCGCCTGGTAACTCCTGATGCTCCTGTCCACGTCAGGCA  
 TCGCAGATGGGGAGAAAAGCAATTCATTCAATTTGAAGTTATCT

**ACGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC232823 representing NM\_001214902  
 Red=Cloning site Green=Tags(s)

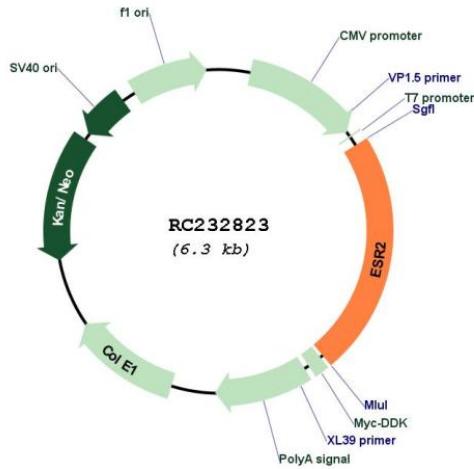
MDIKNSPSSLNSPSSYNCSQSILPLEHGSIIYIPSSYVDSHHEYPAMTFYSPAVMNYIIPSNVTNLEGGPG  
 RQTTSPNVLWPTPGHLSPLVVHRQLSHLYAEPQKSPWCEARSLEHTLPVNRETLKRKVSIGNRCASPVTPG  
 GSKRDAHFCAVCSDYASGYHYGVWSECGKAFFKRSIQGHNDYICPATNQCTIDKNRRKSCQACRLRKY  
 EVGMVKCGSRRERCGYRLVRRQRSADQLHCAGKAKRSGGHAPRVRELLLDAL SPEQLVLTLEAEPHV  
 LISRPSAPFTEASMMMSLTKLADKELVHMISWAKKIPGFVELSLFDQVRLLWSCWMEVLMGLMWRSIDH  
 PGKLI FAPDLVDRDEGKCVEGILEIFDMLLATTSRFRELKQLQKEYLCKAMILLNSSMYPLVTATQDA  
 DSSRKL AHL LNVAVDALVWVIAKSGISSQQSMRLANLLMLLSHVRHARWGEKQFIHLKLS

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**Plasmid Map:**

**ACCN:**

NM\_001214902

**ORF Size:**

1443 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).

<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>NM_001214902.1, NP_001201831.1</u>
<b>RefSeq Size:</b>	2407 bp
<b>RefSeq ORF:</b>	1446 bp
<b>Locus ID:</b>	2100
<b>UniProt ID:</b>	<u>Q92731</u>
<b>Cytogenetics:</b>	14q23.2-q23.3
<b>Protein Families:</b>	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors
<b>MW:</b>	54.5 kDa
<b>Gene Summary:</b>	<p>This gene encodes a member of the family of estrogen receptors and superfamily of nuclear receptor transcription factors. The gene product contains an N-terminal DNA binding domain and C-terminal ligand binding domain and is localized to the nucleus, cytoplasm, and mitochondria. Upon binding to 17beta-estradiol or related ligands, the encoded protein forms homo- or hetero-dimers that interact with specific DNA sequences to activate transcription. Some isoforms dominantly inhibit the activity of other estrogen receptor family members. Several alternatively spliced transcript variants of this gene have been described, but the full-length nature of some of these variants has not been fully characterized. [provided by RefSeq, Jul 2008]</p>