

Product datasheet for **RC238563**

Estrogen Receptor beta (ESR2) (NM_001291712) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Estrogen Receptor beta (ESR2) (NM_001291712) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Estrogen Receptor beta
Synonyms:	ER-BETA; Erb; ESR-BETA; ESRB; ESTRB; NR3A2; ODG8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC238563 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATATAAAAACTCACCATCTAGCCTTAATTCCTCCTCCTACAACCTGCAGTCAATCCATCTTAC
 CCCTGGAGCACGGCTCCATATACATACCTTCTCTATGTAGACAGCCACCATGAATATCCAGCCATGAC
 ATTCTATAGCCCTGCTGTGATGAATTACAGCATTCCCAGCAATGCACTAACTTGGAAAGGTGGGCCTGGT
 CGGCAGACCACAAGCCAAATGTGTTGTGGCCAACACCTGGGCACCTTTCTCCTTATAGTGGTCCATCGCC
 AGTTATCACATCTGTATGCGGAACCTCAAAGAGTCCCTGGTGTGAAGCAAGATCGCTAGAACACACCTT
 ACCTGTAAACAGAGAGACTGAAAAGGAAGGTTAGTGGGAACCGTTGCGCCAGCCCTGTTACTGGTCCA
 GGTTCAAAGAGGGATGCTCACTTCTGCGCTGTCTGCAGCATTACGCATCGGGATACACTATGGAGTCT
 GGTCTGTGAAGGATGTAAGGCCTTTTTAAAAGAAGCATTCAAGGACATAATGATTATATTTGTCCAGC
 TACAAATCAGTGTACAATCGATAAAAACCGGCGCAAGAGCTGCCAGGCCCTGCCACTTCGGAAGTGTAC
 GAAGTGGGAATGGTGAAGTGTGGCTCCCGGAGAGAGAGATGTGGGTACCGCCTTGTGCGGAGACAGAGAA
 GTGCCGACGAGCAGCTGCACTGTGCCGGCAAGGCAAGAGAAGTGGCGGCCACCGCCCGGAGTGGGGGA
 GCTGCTGCTGGACGCCCTGAGCCCCGAGCAGCTAGTGCTCACCCCTCTGGAGGCTGAGCCGCCCATGTG
 CTGATCAGCCGCCCAGTGCGCCCTTACCAGGCCTCCATGATGATGTCCTGACCAAGTTGGCCGACA
 AGGAGTTGGTACACATGATCAGCTGGGCCAAGAAGATCCCGGCTTTGTGGAGCTCAGCCTGTTCCAGCA
 AGTGGCGCTCTTGAGAGCTGTTGGATGGAGGTGTTAATGATGGGGCTGATGTGGCGTCAATTGACCAC
 CCCGGCAAGCTCATCTTTGCTCCAGATCTTGTCTGGACAGGGATGAGGGGAAATGCGTAGAAGGAATTC
 TGGAAATCTTTGACATGCTCCTGCAACTACTTCAAGTTTCGAGAGTAAAACCAACACAAAGAATA
 TCTCTGTGTCAAGGCCATGATCCTGCTCAATCCAGTATGTACCCTCTGGTACAGCGACCCAGGATGCT
 GACAGCAGCCGGAAGCTGGCTCACTTGCTGAACGCCGTGACCGATGCTTTGGTTTGGGTGATTGCCAAGA
 GCGGCATCTCTCCAGCAGCAATCCATGCGCCTGGCTAACCTCCTGATGCTCCTGTCCACGTCAGGCA
 TGCGAGGGCAGAAAAGCCTCTCAAACACTCACCTCATTTGGAATGAAGATGGAGACTCTTTGCTGAA
 GCAACGATGGAGCAG

**ACGGTACGGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA**

Protein Sequence:

>RC238563 protein sequence
 Red=Cloning site Green=Tags(s)

MDIKNSPSSLNSPSSYNCSQSILPLEHGSYIPSSYVDSHHEYPAMTFYSPAVMNYIPSNTNLEGGPG
 RQTTSPNVLWPTPGHLSPLVVHRQLSHLYAEPQKSPWCEARSLEHTLPVNRETLKRKVSNGNRCASPVTGP
 GSKRDAHFCAVCSYASGYHYGVWVWCEGCKAFFKRSIQGHNDYICPATNQCTIDKNRRKSCQACRLRKY
 EVGMVKCGSRRERCGYRLVRRQRSADQLHCAGKAKRSGGHAPRVRELLLDALSPEQLVLTLLAEPPHV
 LISRPSAPFTEASMMMSLTKLADKELVHMSWAKKIPGFVELSLFDQVRLLESCWMEVLMMLMWRSIDH
 PGKLI FAPDLVDRDEGKCVEGILEIFDMLLATTSRFRELKLQHKEYLCVKAMILLNSSMYPLVATQDA
 DSSRKL AHL LNVAVDALVWVIAKSGISSQQSMRLANLLMLLSHVRHARA EKASQTLT SFGMKMETLLPE
 ATMEQ

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg8004_b03.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001291712

ORF Size: 1485 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_001291712.2](#)

RefSeq Size: 4037 bp

RefSeq ORF: 1488 bp

Locus ID: 2100

UniProt ID: [Q92731](#)

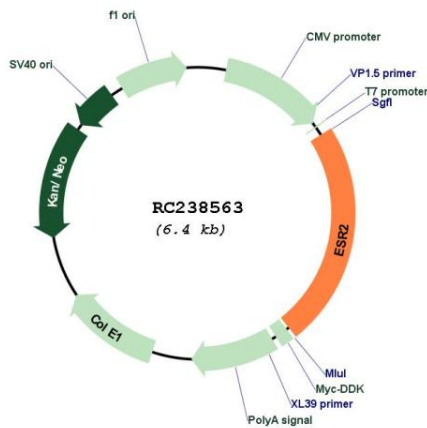
Cytogenetics: 14q23.2-q23.3

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

MW: 55.5 kDa

Gene Summary: 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]

Product images:



Circular map for RC238563