

Product datasheet for **RC218519**

Estrogen Receptor beta (ESR2) (NM_001437) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Estrogen Receptor beta (ESR2) (NM_001437) 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)



[View online »](#)

ORF Nucleotide Sequence:

>RC218519 representing NM_001437
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGATATAAAAACTCACCATCTAGCCTTAATTCCTCTCCTACAACCTGCAGTCAATCCATCTTAC
 CCCTGGAGCACGGCTCCATATACATACCTTCTCTATGTAGACAGCCACCATGAATATCCAGCCATGAC
 ATTCTATAGCCCTGCTGTGATGAATTACAGCATTCCCAGCAATGCACTAACTTGGAAAGTGGGCCTGGT
 CGGCAGACCACAAGCCAAATGTGTTGTGGCCAACACCTGGGCACCTTTCTCCTTATAGTGGTCCATCGCC
 AGTTATCACATCTGTATGCGGAACCTCAAAGAGTCCCTGGTGTGAAGCAAGATCGCTAGAACACACCTT
 ACCTGTAAACAGAGAGACTGAAAAGGAAGGTTAGTGGGAACCGTTGCGCCAGCCCTGTACTGGTCCA
 GGTTCAAAGAGGGATGCTCACTTCTGCGCTGTCTGCAGCATTACGCATCGGGATACACTATGGAGTCT
 GGTCGTGTGAAGGATGTAAGGCCTTTTTAAAAGAAGCATTCAAGGACATAATGATTATATTTGTCCAGC
 TACAAATCAGTGTACAATCGATAAAAACCGGCGCAAGAGCTGCCAGGCCCTGCCACTTCGGAAGTGTAC
 GAAGTGGGAATGGTGAAGTGTGGCTCCCGGAGAGAGAGATGTGGGTACCGCCTTGTGCGGAGACAGAGAA
 GTGCCGACGAGCAGCTGCACTGTGCCGGCAAGGCCAAGAGAAGTGGCGGCCACCGCCCCGAGTGGGGGA
 GCTGCTGCTGGACGCCCTGAGCCCCGAGCAGCTAGTGCTCACCCCTCTGGAGGCTGAGCCGCCCATGTG
 CTGATCAGCCGCCCAGTGCGCCCTTACCAGGCCTCCATGATGATGTCCTGACCAAGTTGGCCGACA
 AGGAGTTGGTACACATGATCAGCTGGGCCAAGAAGATCCCGGCTTTGTGGAGCTCAGCCTGTTCCGACCA
 AGTGGCGCTCTTGAGAGCTGTTGGATGGAGGTGTTAATGATGGGGCTGATGTGGCGTCAATTGACCAC
 CCCGGCAAGCTCATCTTTGCTCCAGATCTTGTCTGGACAGGGATGAGGGGAAATGCGTAGAAGGAATTC
 TGGAAATCTTTGACATGCTCTGCAACTACTTCAAGGTTTCGAGAGTTAAAACCAACACAAAGAATA
 TCTCTGTGTCAAGGCCATGATCCTGCTCAATCCAGTATGTACCCTCTGGTCACAGCGACCCAGGATGCT
 GACAGCAGCCGGAAGCTGGCTCACTTGCTGAACGCCGTGACCGATGCTTTGGTTTGGGTGATTGCCAAGA
 GCGGCATCTCTCCAGCAGCAATCCATGCGCCTGGCTAACCTCCTGATGCTCCTGTCCCACGTCAGGCA
 TGCGAGTAAACAGGGCATGGAACATCTGCTCAACATGAAGTGCAAAAATGTGGTCCAGTGTATGACCTG
 CTGCTGGAGATGCTGAATGCCACGTGCTTCCGGGTGCAAGTCTCCATCACGGGTCCGAGTGCAGCC
 CGGCAGAGGACAGTAAAAGCAAAGAGGGCTCCAGAACCCACAGTCTCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC218519 representing NM_001437
 Red=Cloning site Green=Tags(s)

MDIKNSPSSLNSPSSYNCSQSILPLEHGSYIPSSYVDSHHEYPAMTFYSPAVMNYIIPSNVTNLEGGPG
 RQTTSPNVLWPTPGHLSPLVVHRQLSHLYAEPQKSPWCEARSLEHTLPVNRETLKRKVSNGRCASPVTPG
 GSKRDAHFCVCSYASGYHYGVWVWSECGKFAFFKRSIQGHNDYICPATNQCTIDKNRRKSCQACRLRKY
 EVGMVKCGSRRCGYRLVRRQRSADQLHCAGKAKRSGGHAPRVRELLLDAL SPEQLVLTLLAEPPHV
 LISRPSAPFTEASMMMSLTKLADKELVHMSWAKKIPGFVELSLFDQVRLLESCWMEVLMGLMWRSIDH
 PGKLIFAPDLVDRDEGKCEGILEIFDMLLATTSRFRELKQHQKEYLVCVAMILLNSSMYPLVTATQDA
 DSSRKLALHLLNAVTDALVWVIAKSGISSQQSMRLANLLMLLSHVRHASNKGMEHLLNMCKKNVVPVYDL
 LLEMLNAHVLRGCKSSITGSECSPAEDSKSKEGSQNPQSQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2603_g01.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001437

ORF Size: 1590 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

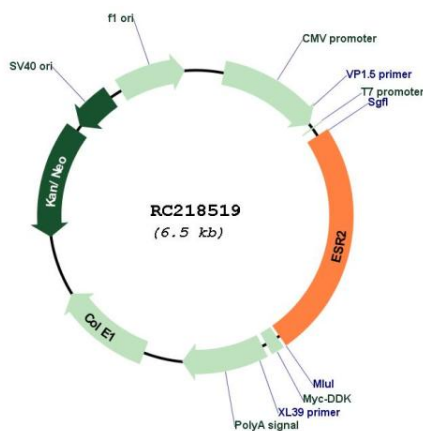
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

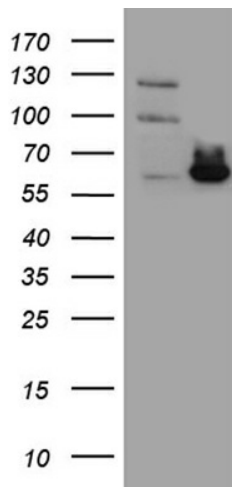
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001437.2
RefSeq Size:	2011 bp
RefSeq ORF:	1593 bp
Locus ID:	2100
UniProt ID:	Q92731
Cytogenetics:	14q23.2-q23.3
Domains:	HOLI, zf-C4
Protein Families:	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors
MW:	59 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]

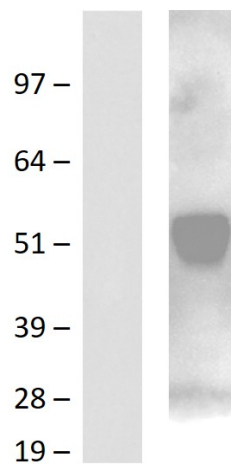
Product images:



Circular map for RC218519



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ESR2 (Cat# RC218519, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ESR2 (Cat# [TA801038])(1:2000). Positive lysates [LY400556] (100ug) and [LC400556] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400556]) using an anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218519 using transfection reagent PEI