

Product datasheet for **RG212665**

Estrogen Receptor beta (ESR2) (NM_001040275) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Estrogen Receptor beta (ESR2) (NM_001040275) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ESR2
Synonyms:	ER-BETA; Erb; ESR-BETA; ESRB; ESTRB; NR3A2; ODG8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG212665 representing NM_001040275
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATATAAAAACTCACCATCTAGCCTTAATTCCTCTCCTACAACCTGCAGTCAATCCATCTTAC
 CCCTGGAGCACGGCTCCATATACATACCTTCTCTATGTAGACAGCCACCATGAATATCCAGCCATGAC
 ATTCTATAGCCCTGCTGTGATGAATTACAGCATTCCCAGCAATGCACTAACTTGGAAAGGTGGCCCTGGT
 CGGCAGACCACAAGCCAAATGTGTTGTGGCCAACACCTGGGCACCTTTCTCCTTTAGTGGTCCATCGCC
 AGTTATCACATCTGTATGCGGAACCTCAAAGAGTCCCTGGTGTGAAGCAAGATCGCTAGAACACACCTT
 ACCTGTAAACAGAGAGACACTGAAAAGGAAGGTTAGTGGGAACCGTTGCGCCAGCCCTGTTACTGGTCCA
 GGTTCAAAGAGGGATGCTCACTTCTGCGCTGTCTGCAGCGATTACGCATCGGGATACACTATGGAGTCT
 GGTCTGTGAAGGATGTAAGGCCTTTTTAAAAGAAGCATTCAAGGACATAATGATTATATTTGTCACG
 TACAAATCAGTGTACAATCGATAAAAACCGGCGCAAGAGCTGCCAGGCCCTGCCGACTTCGGAAGTGTAC
 GAAGTGGGAATGGTGAAGTGTGGCTCCCGGAGAGAGAGATGTGGGTACCGCTTGTGCGGAGACAGAGAA
 GTGCCGACGAGCAGCTGCACTGTGCCGGCAAGGCCAAGAGAAGTGGCGGCCACCGCCCCGAGTGGGGGA
 GCTGCTGCTGGACGCCCTGAGCCCCGAGCAGCTAGTGCTCACCCCTCTGGAGGCTGAGCCGCCCATGTG
 CTGATCAGCCGCCCAGTGCGCCCTTACCAGGCCTCCATGATGATGTCCTGACCAAGTTGGCCGACA
 AGGAGTTGGTACACATGATCAGCTGGGCCAAGAAGATCCCGGCTTTGTGGAGCTCAGCCTGTTCCACCA
 AGTGCGGCTCTTGGAGAGCTGTTGGATGGAGGTGTTAATGATGGGGCTGATGTGGCGTCAATTGACCAC
 CCCGGCAAGCTCATCTTGTCTCCAGATCTTGTCTGGACAGGGATGAGGGGAAATGCGTAGAAGGAATTC
 TGGAAATCTTTGACATGCTCTGCAACTACTTCAAGTTTCGAGAGTTAAAACCAACACAAAAGATA
 TCTCTGTGTCAAGGCCATGATCCTGCTCAATCCAGTATGTACCCTCTGGTACACAGCGACCCAGGATGCT
 GACAGCAGCCGGAAGCTGGCTCACTTGCTGAACGCCGTGACCGATGCTTTGGTTTGGGTGATTGCCAAGA
 GCGGCATCTCTCCAGCAGCAATCCATGCGCCTGGCTAACCTCCTGATGCTCCTGTCCACGTCAGGCA
 TGCGAGGGCAGAAAAGGCCTCTCAAACACTCACCTCATTTGGAATGAAGATGGAGACTCTTTGCTGAA
 GCAACGATGGAGCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG212665 representing NM_001040275
 Red=Cloning site Green=Tags(s)

MDIKNSPSSLNSPSSYNCSQSILPLEHGSYIPSSYVDSHHEYPAMTFYSPAVMNYIPSNTVNLEGGPG
 RQTTSPNVLWPTPGHLSPLVVHRQLSHLYAEPQKSPWCEARSLEHTLPVNRETLKRKVSNGRNASPVTGP
 GSKRDAHFCAVCSYASGYHYGVWVWSECGCKAFFKRSIQGHNDYICPATNQCTIDKNRRKSCQACRLRKY
 EVGMVKCGSRRRCGYRLVRRQRSADQLHCAGKAKRSGGHAPRVRELLLDALSPEQLVLTLLAEPPHV
 LISRSPAPFTEASMMSLTKLADKELVHMI SWAKKIPGFVELSLFDQVRLLESCWMEVLMGLMWRSIDH
 PGKLI FAPDLVDRDEGKCVEGILEIFDMLLATT SRFRELKLQHKEYLCVKAMILLNSSMYPLVATQDA
 DSSRKLHLLNAVTDALVWVIAKSGISSQQSMRLANLLMLLSHVRHARA EKASQTLTSFGMKMETLLPE
 ATMEQ

TRTRPLE - GFP Tag - V

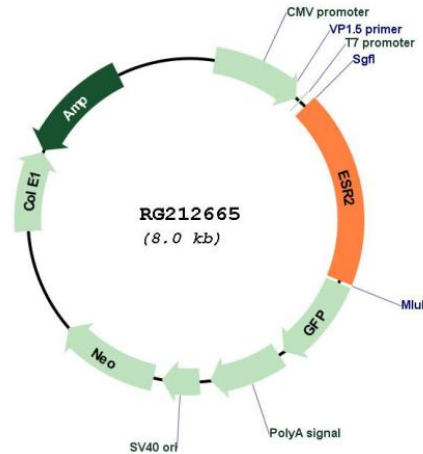
Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_001040275

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:	<ol style="list-style-type: none">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_001040275.1 , NP_001035365.1
RefSeq Size:	2470 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
Gene Summary:	<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>