

Product datasheet for **RG238563**

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:	TurboGFP
Symbol:	Estrogen Receptor beta
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:

>RG238563 representing NM_001291712.
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGATATAAAAACTCACCATCTAGCCTTAATTCCTCCTCCTACAACCTGCAGTCAATCCATCTTA
CCCTGGAGCAGGCTCCATATACATACCTTCTCTATGTAGACAGCCACCATGAATATCCAGCCATG
ACATTCTATAGCCCTGCTGTGATGAATTACAGCATTCCCAGCAATGTCACTAACTTGAAGGTGGGCCT
GGTCGGCAGACCAAGCCAAATGTGTTGTGGCCAACACCTGGGCACCTTTCTCCTTTAGTGGTCCAT
CGCCAGTTATCACATCTGTATGCGGAACCTCAAAAGAGTCCCTGGTGTGAAGCAAGATCGCTAGAACAC
ACCTTACCTGTAACAGAGAGACTGAAAAGGAGGTTAGTGGGAACCGTTGCGCCAGCCCTGTTACT
GGTCCAGGTTCAAAGAGGGATGCTCACTTCTGCGTGTCTGCAGCGATTACGCATCGGGATCACTAT
GGAGTCTGGTGTGAAGGATGAAGGCCTTTTTAAAAGAAGCATTCAAGGACATAATGATTATATT
TGTCAGCTACAATCAGTGTACAATCGATAAAAACCGGCGCAAGAGCTGCCAGGCCTGCCACTTCGG
AAGTGTACGAAGTGGGAATGGTGAAGTGTGGCTCCCGGAGAGAGATGTGGTACCGCCTTGTCGG
AGACAGAGAAGTCCGACGAGCAGCTGCACTGTGCCGGCAAGGCCAAGAGAAGTGGCGGCCACGCGCC
CGAGTGGCGGAGCTGCTGCTGGACGCCCTGAGCCCCGAGCAGCTAGTGCTCACCTCCTGGAGGCTGAG
CCGCCCATGTGCTGATCAGCCGCCAGTGGCCCTTACCAGGCTCCATGATGATGTCCTGACC
AAGTTGGCCGACAAGGAGTTGGTACACATGATCAGCTGGGCCAAGAAGATTCCCGCTTTGTGGAGCTC
AGCCTGTTGACCAAGTGGGCTCTTGGAGAGCTGTTGGATGGAGGTGTTAATGATGGGGCTGATGTGG
CGCTCAATTGACCACCCCGCAAGCTCATCTTGTCTCAGATCTTGTCTGGACAGGGATGAGGGGAAA
TGCGTAGAAGGAATCTGAAATCTTTGACATGCTCCTGGCACTACTCAAGGTTTCGAGAGTTAAAA
TCCAACACAAGAATATCTCTGTGCAAGGCCATGATCTGCTCAATCCAGTATGATCCCTCTGGTC
ACAGCGACCCAGGATGCTGACAGCAGCCGAAGCTGGCTCACTTGTGAACGCCGTGACCGATGCTTTG
GTTTGGGTGATTGCCAAGAGCGGCATCTCTCCAGCAGCAATCCATGCGCCTGGCTAACCTCCTGATG
CTCCTGTCCACGTCAGGCATGCGAGGGCAGAAAAGGCCTCTCAAACACTCACCTCATTTGGAATGAAG
ATGGAGACTCTTTGCTGAAGCAACGATGGAGCAG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

Protein Sequence:

>Peptide sequence encoded by RG238563
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MDIKNSPSSLNSPSSYNCSQSILPLEHGSIIYIPSSYVDSHHEYPAMTFYSPAVMNYIIPSNVTNLEGGP
GRQTTSPNVLWPTPGHLSPLVVHRQLSHLYAEPQKSPWCEARSLEHTLPVNRETLKRKVSNGRNCASPVT
GPGSKRDAHFCAVCSDYASGYHYGVWSCEGCKAFFKRSIQGHNDYICPATNQCTIDKNRRKSCQACRLR
KCYEVMVKCGSRRERCYRLVRRQRSADQLHCAGKAKRSGGHAPRVRELLLDAL SPEQLVLTLEAE
PPHVLISRPSAPFTEASMMMSLTKLADKELVHMI SWAKKIPGFVELSLFDQVRLLESCWMEVLMGLMW
RSIDHPGKLI FAPDLVLDREDEKCEGILEIFDMLLATTSRFRELKQLQKEYLVCAMILLNSMYPLV
TATQDADSSRKL AHL LN AVTDAL VWVI AKSGISSQQSMRLANLLMLLSHVRHARA EKASQTLT SFGMK
METLLPEATMEQ
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites:

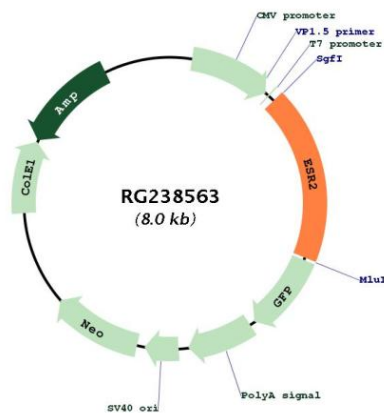
Sgfl-Mlul

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).
- 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 RG238563