

Product datasheet for **RG226003**

Estrogen Receptor 1 (ESR1) (NM_001122740) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Estrogen Receptor 1 (ESR1) (NM_001122740) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Estrogen Receptor 1
Synonyms:	ER; Era; ESR; ESRA; ESTRR; NR3A1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG226003 representing NM_001122740
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACCATGACCCTCCACACAAAGCATCTGGGATGGCCCTACTGCATCAGATCCAAGGGAACGAGCTGG
 AGCCCTGAACCGTCCGACAGCTCAAGATCCCCCTGGAGCGGCCCTGGGCGAGGTGTACCTGGACAGCAG
 CAAGCCC GCCGTGTACAACCTACCCGAGGGCGCCGCTACGAGTTCAACGCCGCGCCGCCCAACCGC
 CAGGTCTACGGTCAGACCGCCCTCCCCTACGGCCCCGGTCTGAGGCTGCGGCGTTCCGGCTCCAACGGCC
 TGGGGGTTTTCCCCCACTCAACAGCGTGTCTCCGAGCCCGCTGATGCTACTGCACCCGCCCGCAGCT
 GTCGCCTTCTGCAGCCCCACGGCCAGCAGGTGCCCTACTACCTGGAGAACGAGCCAGCGGCTACACG
 GTGCGCGAGGCGGCCGCCGCGCATTCTACAGGCCAAATTCAGATAATCGACGCCAGGTTGCCAGAGAAA
 GATTGGCCAGTACCAATGACAAGGGAAGTATGGCTATGGAATCTGCCAAGGAGACTCGCTACTGTGCAGT
 GTGCAATGACTATGCTTACAGCTACCATTATGGAGTCTGGTCTGTGAGGGCTGCAAGGCCCTTCTCAAG
 AGAAGTATTCAAGGACATAACGACTATATGTGTCCAGCCACCAACAGTGCACCATTGATAAAAACAGGA
 GGAAGAGCTGCCAGGCCCTGCCGGCTCCGCAATGCTACGAAGTGGGAATGATGAAAGGTGGGATACGAAA
 AGACCGAAGAGGAGGAGAATGTTGAAACACAAGCGCCAGAGAGATGATGGGAGGGCAGGGGTGAAGTG
 GGGTCTGCTGGAGACATGAGAGCTGCCAACCTTTGGCCAAGCCGCTCATGATCAAACGCTCTAAGAAGA
 ACAGCCTGGCCTTGTCCCTGACGGCCGACCAGATGGTCACTGCTTGTGGATGCTGAGCCCCCATACT
 CTATCCGAGTATGATCTACCAGCCCTTCAGTGAAGCTTCGATGATGGGCTTACTGACCAACCTGGCA
 GACAGGGAGCTGGTTCACATGATCAACTGGCGAAGAGGGTCCAGGCTTTGTGGATTTGACCTCCATGA
 ATCAGGTCCACCTTCTAGAATGTGCCTGGCTAGAGATCCTGATGATTGGTCTCGTCTGGCCTCCATGGA
 GCACCCAGGGAAGCTACTGTTTGTCTCTAACTTGCTCTTGACAGGAACCAAGGAAAATGTGTAGAGGGC
 ATGGTGGAGATCTTCGACATGCTGCTGGCTACATCATCTCGGTTCCGCATGATGAATCTGCAGGGAGAGG
 AGTTTGTGTGCCTCAAATCTATTATTTGCTTAATTCTGGAGTGTACACATTTCTGTCCAGCACCTGAA
 GTCTCTGGAAGAGAAGGACCATATCCACCAGTCTGGACAAGATCACAGACACTTTGATCCACCTGATG
 GCCAAGGCAGGCTGACCCTGCAGCAGCAGCACCAGCGGCTGGCCAGCTCCTCCTCATCTCTCCACA
 TCAGGCACATGAGTAACAAAGGCATGGAGCATCTGTACAGCATGAAGTGAAGAAGCTGGTCCCTCTA
 TGACCTGCTGCTGGAGATGCTGGACGCCACCGCTACATGCGCCCACTAGCCGTGGAGGGGCATCCGTG
 GAGGAGACGGACAAAGCCACTTGGCCACTGCGGGCTCTACTTCATCGCATTCTTGCAAAGTATTACA
 TCACGGGGGAGGCAGAGGTTTCCCTGCCACGGTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG226003 representing NM_001122740
 Red=Cloning site Green=Tags(s)

MTMTLHTKASGMALLHQIQGNELEPLNRPQLKIPLERPLGEVYLDSSKPAVYNYPEGAAYEFNAAAAANA
 QVYQGTLPGYGPSEAAAFGSNGLGGFPPLNSVSPSPLMLLHPPPQLSPFLQPHGQVVPYYLENEPSGYT
 VREAGPPAFYRPNSDNRRQGGRELRASNDKGSMAESAKETRYCAVCNDYASGYHYGVWSCEGCKAFFK
 RSIQGHNDYMCATNQCTIDKNRRKSCQACRLRKYEVGMMKGGIRKDRRGRMLKHKRQRDDGEGRGEV
 GSAGDMRAANLWPSPLMIKRSKKNLALSLTADQMVSALLDAEPPILYSEYDPTRPFSEASMMGLLTNLA
 DRELVHMINWAKRVPFVDTLHDQVHLLCAWLEILMIGLVWRSMEHPGKLLFAPNLLDRNQKCVGEV
 MVEIFDMLLATSSRFMMNLQGEFVCLKSIIILLNSGVYTFLLSSTLKSLEEKDHIHRVLDKITDTLIHLM
 AKAGLTLQQHQRLAQLLLILSHIRHMSNKGMEHLYSMKCKNVVPLYDLLLLLEMLDAHRLHAPTSRGGASV
 EETDQSHLATAGSTSSHSLQKYIITGEAEGFPATV

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001122740

ORF Size: 1785 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_001122740.1](#), [NP_001116212.1](#)

RefSeq Size: 6357 bp

RefSeq ORF: 1788 bp

Locus ID: 2099

UniProt ID: [P03372](#)

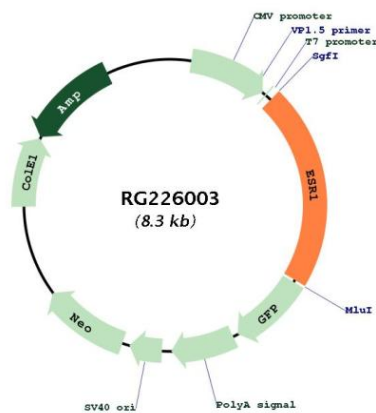
Cytogenetics: 6q25.1-q25.2

Protein Families:

Druggable Genome, Nuclear Hormone Receptor, Transcription Factors

Gene Summary:

This gene encodes an estrogen receptor and ligand-activated transcription factor. The canonical protein contains an N-terminal ligand-independent transactivation domain, a central DNA binding domain, a hinge domain, and a C-terminal ligand-dependent transactivation domain. The protein localizes to the nucleus where it may form either a homodimer or a heterodimer with estrogen receptor 2. The protein encoded by this gene regulates the transcription of many estrogen-inducible genes that play a role in growth, metabolism, sexual development, gestation, and other reproductive functions and is expressed in many non-reproductive tissues. The receptor encoded by this gene plays a key role in breast cancer, endometrial cancer, and osteoporosis. This gene is reported to have dozens of transcript variants due to the use of alternate promoters and alternative splicing, however, the full-length nature of many of these variants remain uncertain. [provided by RefSeq, Jul 2020]

Product images:


Circular map for RG226003