

Product datasheet for **SC318947**

Estrogen Receptor 1 (ESR1) (NM_001122742) Human Untagged Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Estrogen Receptor 1 (ESR1) (NM_001122742) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | Estrogen Receptor 1 |
| Synonyms: | ER; Era; ESR; ESRA; ESTRR; NR3A1 |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL4</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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Fully Sequenced ORF: >OriGene ORF sequence for NM_001122742 edited
 ATGACCATGACCTCCACACCAAAGCATCTGGGATGGCCCTACTGCATCAGATCCAAGGG
 AACGAGCTGGAGCCCCTGAACCGTCCGCAGCTCAAGATCCCCCTGGAGCGGCCCTGGGC
 GAGGTGTACCTGGACAGCAGCAAGCCCGCCGTGTACAACACCCCGAGGGCGCCGCTAC
 GAGTTCAACGCCGCGCCGCCCAACGCGCAGGTCTACGGTACAGCCGGCCTCCCCTAC
 GGCCCCGGGTCTGAGGCTGCGGCGTTTCGGCTCCAACGGCCTGGGGGTTTCCCCCACTC
 AACAGCGTGTCTCCGAGCCCGCTGATGCTACTGCACCCGCGCCGAGCTGTCGCTTTTC
 CTGCAGCCCCACGGCCAGCAGGTGCCCTACTACCTGGAGAACGAGCCAGCGGCTACACG
 GTGCGCGAGGCGGCCCGCCGCGATTCTACAGGCCAAATTCAGATAATCGACGCCAGGGT
 GGCAGAGAAAAGATTGGCCAGTACCAATGACAAGGGAAGTATGGCTATGGAATCTGCCAAG
 GAGACTCGCTACTGTGCAGTGTGCAATGACTATGCTTCAGGCTACCATTATGGAGTCTGG
 TCCTGTGAGGGCTGCAAGGCCTTCTTCAAGAGAAGTATTCAGGACATAACGACTATATG
 TGTCAGCCACCAACCAGTGCACCATTGATAAAAAACAGGAGGAAGAGCTGCCAGGCCTGC
 CGGCTCCGCAAAATGCTACGAAGTGGGAATGATGAAAGGTGGGATACGAAAAGACCGAAGA
 GGAGGGAGAATGTTGAAACACAAGCGCCAGAGAGATGATGGGGAGGGCAGGGGTGAAGTG
 GGGTCTGCTGGAGACATGAGAGCTGCCAACCTTTGGCCAAGCCCGCTCATGATCAAACGC
 TCTAAGAAGAACAGCCTGGCCTTGTCCCTGACGGCCGACCAGATGGTCAGTGCCTTGTG
 GATGCTGAGCCCCGATACTCTATTCCGAGTATGATCCTACCAGACCCCTCAGTGAAGCT
 TCGATGATGGGCTTACTGACCAACCTGGCAGACAGGGAGCTGGTTCACATGATCAACTGG
 GCGAAGAGGGTGCCAGGCTTTGTGGATTTGACCCTCCATGATCAGGTCCACCTTTAGAA
 TGTGCCTGGCTAGAGATCCTGATGATTGGTCTCGTCTGGCGCTCCATGGAGCACCAGGG
 AAGCTACTGTTTGTCTCTAACTTGTCTTGGACAGGAACCAGGAAAAATGTGTAGAGGGC
 ATGGTGGAGATCTTCGACATGCTGCTGGCTACATCATCTCGTTCCGCATGATGAATCTG
 CAGGGAGAGGAGTTTGTGTGCCTCAAATCTATTATTTTGTCTAATTCTGGAGTGTACACA
 TTTCTGTCCAGCACCTGAAGTCTCTGGAAGAGAAGGACCATATCCACCGAGTCTGGAC
 AAGATCACAGACACTTTGATCCACCTGATGGCCAAGGCAGGCCTGACCCTGCAGCAGCAG
 CACCAGCGGCTGGCCAGCTCCTCCTCATCTCTCCACATCAGGCACATGAGTAACAAA
 GGCATGGAGCATCTGTACAGCATGAAGTGAAGAACGTGGTGGCCCTCTATGACCTGCTG
 CTGGAGATGCTGGACGCCACCGCTACATGCGCCCACTAGCCGTGGAGGGGCATCCGTG
 GAGGAGACGGACAAAGCCACTTGGCCACTGCGGGCTCTACTTCATCGCATTCTTGCAA
 AAGTATTACATCAGGGGGAGGCAGAGGGTTTCCCTGCCACGGTCTGA

Restriction Sites: Please inquire

ACCN: NM_001122742

Insert Size: 4500 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: The open reading frame of this clone has been fully sequenced and found one SNP within the protein associated with this reference, NM_001122742.1, This SNP doesn't change amino acid.

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_001122742.1](#), [NP_001116214.1](#)

RefSeq Size: 6466 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]

Transcript Variant: This variant (4) differs in the 5' UTR and uses a different promoter, compared to variant 1. Variants 1-4 all encode the same isoform 1.