

Product datasheet for **SC125287**

Estrogen Receptor 1 (ESR1) (NM_000125) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Estrogen Receptor 1 (ESR1) (NM_000125) 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 within SC125287 sequence for NM_000125 edited (data generated by NextGen Sequencing)

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ATGACCATGACCTCCACACCAAAGCATCTGGGATGGCCCTACTGCATCAGATCCAAGGG
AACGAGCTGGAGCCCCTGAACCGTCCGCAGCTCAAGATCCCCCTGGAGCGGCCCTGGGC
GAGGTGTACCTGGACAGCAGCAAGCCCGCCGTGTACAACACCCCGAGGGCGCCGCTAC
GAGTTCAACGCCCGGCCCGCCGCAACGCGCAGGTCTACGGTCAGACCGGCCTCCCCTAC
GGCCCCGGGTCTGAGGCTGCGGGCTTCGGCTCCAACGGCCTGGGGGGTTCCCCCACTC
AACAGCGTGTCTCCGAGCCCGCTGATGCTACTGCACCCGCGCCGAGCTGTCGCCTTTC
CTGCAGCCCCACGGCCAGCAGGTGCCCTACTACCTGGAGAACGAGCCAGCGGCTACAGC
GTGCGCGAGGCGGCCCGCCGGCATTCTACAGGCCAAATTCAGATAATCGACGCCAGGGT
GGCAGAGAAAAGATTGGCCAGTACCAATGACAAGGGAAGTATGGCTATGGAATCTGCCAAG
GAGACTCGCTACTGTGCAGTGTGCAATGACTATGCTTCAGGCTACCATTATGGAGTCTGG
TCCTGTGAGGGTGAAGGCCTTCTTCAAGAGAAGTATCAAGGACATAACGACTATATG
TGTCACGCCACCAACAGTGCACCATTGATAAAAAACAGGAGGAAGAGCTGCCAGGCCTGC
CGCTCCGCAAAATGCTACGAAGTGGGAATGATGAAAGGTGGGATACGAAAAGACCGAAGA
GGAGGGAGAATGTTGAAACACAAGCGCCAGAGAGATGATGGGGAGGGCAGGGGTGAAGTG
GGTCTGCTGGAGACATGAGAGCTGCCAACCTTTGGCCAAGCCCGCTCATGATCAAAACGC
TCTAAGAAGAACAGCCTGGCCTTGTCCCTGACGGCCGACCAGATGGTCAGTGCCTTGTG
GATGCTGAGCCCCGATACTCTATTCCGAGTATGATCCTACCAGACCCTTCAGTGAAGCT
TCGATGATGGGCTTACTGACCAACCTGGCAGACAGGGAGCTGGTTCACATGATCAACTGG
GCGAAGAGGGTGCCAGGCTTTGTGGATTTGACCCTCCATGATCAGGTCCACCTTCTAGAA
TGTGCCTGGCTAGAGATCCTGATGATTGGTCTCGTCTGGCGCTCCATGGAGCACCAGTG
AAGCTACTGTTTGCTCCTAACTTGCTCTTGACAGGAACAGGGAAAATGTGTAGAGGGC
ATGGTGGAGATCTTCGACATGCTGCTGGCTACATCATCTCGGTTCCGCATGATGAATCTG
CAGGGAGAGGAGTTTGTGTGCCTCAAATCTATTATTTTGCCTAATTCTGGAGTGTACACA
TTTCTGTCCAGCACCTGAAAGTCTCTGGAAGAGAAGGACCATATCCACCGAGTCTGGAC
AAGATCACAGACACTTTGATCCACCTGATGGCCAAGGCAGGCCTGACCCTGCAGCAGCAG
CACCAGCGGCTGGCCAGCTCCTCCTCATCCTCTCCACATCAGGCACATGAGTAACAAA
GGCATGGAGCATCTGTACAGCATGAAGTGAAGAACGTGGTGGCCCTCTATGACCTGCTG
CTGGAGATGCTGGACGCCACCGCCTACATGCGCCCACTAGCCGTGGAGGGGCATCCGTG
GAGGAGACGGACCAAGCCACTTGGCCACTGCGGGCTCTACTTCATCGCATTCTTGCAA
AAGTATTACATCACGGGGAGGCAGAGGGTTTCCCTGCCACGGTCTGA

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Clone variation with respect to NM_000125.3
 975 c=>g;1199 g=>t

Restriction Sites: Please inquire
ACCN: NM_000125
Insert Size: 3500 bp

OTI Disclaimer:	<p>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.</p> <p>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</p>
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_000125.2 , NP_000116.2
RefSeq Size:	6456 bp
RefSeq ORF:	1788 bp
Locus ID:	2099
UniProt ID:	P03372
Cytogenetics:	6q25.1-q25.2
Domains:	HOLI, Oest_recep, zf-C4
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 (1) uses the most proximal promoter, and encodes isoform 1. Variants 1-4 all encode the same isoform 1.