

Product datasheet for **MR230259**

Esr1 (NM_001302533) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Esr1 (NM_001302533) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Esr1
Synonyms:	E; ER; ER-; ER-alpha; ERa; ERalpha; ER[; Es; ESR; Estr; Estra; Nr; Nr3a1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR230259 representing NM_001302533
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACCATGACCCTTACACCAAAGCCTCGGGAATGGCCTTGCTGCACCAGATCCAAGGGAACGAGCTGG
 AGCCCCTCAACCGCCCGCAGCTCAAGATGCCCATGGAGAGGGCCCTGGGCGAGGTATACGTGGACAACAG
 CAAGCCCACTGTGTTCAACTACCCCGAGGGCGCCGCTACGAGTTCAACGCCCGCCGCCGCCGCCGCC
 GCCGCTCGGCGCCGGTCTACGGCCAGTCGGGCATCGCCTACGGCCCCGGGTGGAGGCGGCCGCCCTTCA
 GTGCCAACAGCCTGGGGGCTTTCCCCAGCTCAACAGCGTGTGCGCTAGCCCGCTGATGCTGCTGCCACC
 GCCGCCGAGCTGTCTCCTTTCTGCACCCGCACGGCCAGCAGGTGCCCTACTACCTGGAGAACGAGCCC
 AGCGCCTACGCCGTGCGGACACCGCCCTCCCGCCTTACAGGTCTAATTCTGACAATCGACGCCAGA
 ATGGCCGAGAGAGACTGTCCAGCAGTAACGAGAAAAGAAACATGATCATGGAGTCTGCCAAGGAGACTCG
 TACTGTGCCGTGTGCAATGACTATGCCTCTGGCTACCATTATGGGGTCTGGTCTCGCAAGGCTGCAAG
 GCTTTCTTTAAGAGAAGCATTCAAGGACACAATGACTACATGTGTCCAGCTACAAACCAATGCACCATTG
 ACAAGAACCGGAGGAAGAGTTGCCAGGCCGTGTCGGCTGCGCAAGTGTACGAAGTGGGCATGATGAAAGG
 CGGCATACGAAAAGACCGCCGAGGAGGGAGAATGTTGAAGCACAAGCGTCAGAGAGATGACTTGGAAAGC
 CGAAATGAAATGGGTGCTTCAGGAGACATGAGGGCTGCCAACCTTTGGCCAAGCCCTCTTGATTAAGC
 AACTAAGAAGAATAGCCCTGCCTTGTCTTGCACAGTACCAGATGGTCAAGTGCCTTGTGGATGCTGA
 ACCGCCATGATCTATTCTGAATATGATCCTTCTAGACCCTTCAAGTGAAGCCTCAATGATGGGCTTATTG
 ACCAACCTAGCAGATAGGGAGCTGGTTCATATGATCAACTGGGCAAAGAGAGTCCAGGCTTTGGGGACT
 TGAATCCATGATCAGGTCCACCTTCTCGAGTGTGCTGGTGGAGATTCTGATGATTGGTCTCGTCTG
 GCGCTCCATGGAACACCGGGGAAGCTCCTGTTTGTCTCCTAAGTCTGCTCCTGGACAGAGAACATTCTGTC
 AAGACTTTGAAAAGAAGCTCTGACAAGGACCTACAAGGACTTCAGACAACCTGGGATTCCTTTATGTGAGA
 AAGAAGATGGACTACTTTTAAAAATGCAACCAGGGTACAAGAAAAACCAACCTGTAGTCTGCACCTCTCT
 AACCAAGGCCAAGAGAGCCTGCCATGTGATACTAGTCCCATCCCCAGAGTCCAGAAATGTAGGTGTCAA
 GATTCCACTCTGCTCGTAGTGAAGTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230259 representing NM_001302533
 Red=Cloning site Green=Tags(s)

MTMTLHTKASGMALLHQIQGNELEPLNRPQLKMPMERALGEVYVDNSKPTVFNYPEGAAEFNAAAAA
 AASAPVYQSGIAYGPGSEAAAFSANSLGAFPQLNSVSPSPLMLLHPPPQLSPFLPHGQQVPYYLENEP
 SAYAVRDTGPPAFYRSNSDNRRQNGRERLSSSNEKGNMIMESAKETRYCAVCNDYASGYHYGVWSCEGCK
 AFFKRISIQGHNDYMCPTNQCTIDKNRRKSCQACRLRKYEVGMMKGGIRKDRRGGMRMLKHKRQRDLEG
 RNEMGASGDMRAANLWPSPLVIKHTKKNPALSLTADQMVSAALLDAEPPMIYSEYDPSRPFSEASMMGLL
 TNLADRELVHMINWAKRVPFGDLNLHDQVHLLCAWLEILMIGLVWRSMHPGKLLFAPNLLDREHSV
 KTLKRSSDKDLQGLQTTGIPLCQKEDGLLLKNATRVQEKPTCSLHSLTKAKRACHVILVPSPESRNVGK
 DSTLLVVNS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

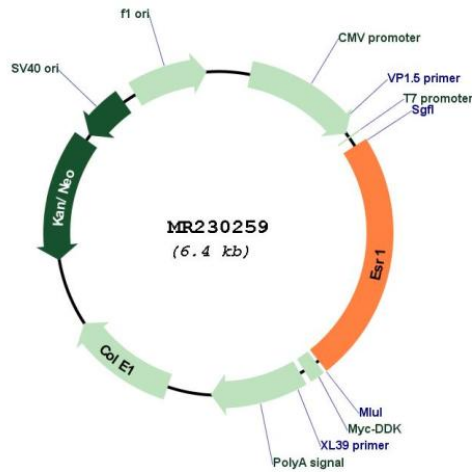
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001302533

ORF Size: 1497 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_001302533.1](#), [NP_001289462.1](#)

RefSeq Size: 2730 bp

RefSeq ORF: 1500 bp

Locus ID: 13982

Cytogenetics: 10 2.03 cM

MW: 55.7 kDa

Gene Summary: This gene encodes an estrogen receptor, a member of the nuclear hormone family of intracellular receptors. The encoded protein, activated by the sex hormone estrogen, is a transcription factor composed of several domains important for hormone binding, DNA binding, and activation of transcription. Estrogen and its receptors are essential for sexual development and reproductive function, but also play a role in other tissues such as bone. Similar genes in human have been implicated in pathological processes including breast cancer, endometrial cancer, and osteoporosis. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2014]