

## Recombinant Human ESR1 Protein (10-595 aa), His-tagged

Cat. No. ESR1-1390H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human ESR1 Protein (10-595 aa) is produced by Yeast expression system. This protein is fused with a 6xHis tag at the N-terminal. Research Area: Transcription. Protein Description: Partial.
<b>Species</b>	Human
<b>Source</b>	Yeast
<b>ProteinLength</b>	10-595 aa
<b>Description</b>	<p>Nuclear hormone receptor. The steroid hormones and their receptors are involved in the regulation of eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues. Ligand-dependent nuclear transactivation involves either direct homodimer binding to a palindromic estrogen response element (ERE) sequence or association with other DNA-binding transcription factors, such as AP-1/c-Jun, c-Fos, ATF-2, Sp1 and Sp3, to mediate ERE-independent signaling. Ligand binding induces a conformational change allowing subsequent or combinatorial association with multiprotein coactivator complexes through LXXLL motifs of their respective components. Mutual transrepression occurs between the estrogen receptor (ER) and NF-kappa-B in a cell-type specific manner. Decreases NF-kappa-B DNA-binding activity and inhibits NF-kappa-B-mediated transcription from the IL6 promoter and displace RELA/p65 and associated coregulators from the promoter. Recruited to the NF-kappa-B response element of the CCL2 and IL8 promoters and can displace CREBBP. Present with NF-kappa-B components RELA/p65 and NFKB1/p50</p>

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on ERE sequences. Can also act synergistically with NF-kappa-B to activate transcription involving respective recruitment adjacent response elements; the function involves CREBBP. Can activate the transcriptional activity of TFF1. Also mediates membrane-initiated estrogen signaling involving various kinase cascades. Isoform 3 is involved in activation of NOS3 and endothelial nitric oxide production. Isoforms lacking one or several functional domains are thought to modulate transcriptional activity by competitive ligand or DNA binding and/or heterodimerization with the full length receptor. Essential for MTA1-mediated transcriptional regulation of BRCA1 and BCAS3. Isoform 3 can bind to ERE and inhibit isoform 1.

**Form** Tris-based buffer, 50% glycerol

**Molecular Mass** 67.2 kDa

**AA Sequence**

SGMALLHQIQGNELEPLNRPQLKIPLERPLGEVYLDSSKPAVYNYPEGAAAYEFNAAA  
 AANAQVYGQTGLPYGPGSEAAAFGSNGLGGFPPLNSVSPSPLMLLHPPPQLSPFLQ  
 PHGQQVPYYLENEPSGYTVREAGPPAFYRPNSDNRRQGGRELASTNDKGSMMAM  
 ESAKETRYCAVCNDYASGYHYGVWSCEGCKAFFKRSIQGHNDYMCPATNQCTIDK  
 NRRKSCQACRLRKCYEVGMMKGGIRKDRRGGRMLKHKRQRDDGEGRGEVGSAG  
 DMRAANLWPSPLMIKRSKKNSLALSLTADQMVSALLDAEPPILYSEYDPTRPFSEAS  
 MMGLLTNLADRELVHMINWAKRVPGFVDLTLHDQVHLLCEAWLEILMIGLVWRSME  
 HPGKLLFAPNLLLDRNQGKCVEGMVEIFDMLLATSSRFRMMNLQGEEFVCLKSIILLN  
 SGVYTFLSSTLKSLEEKDHIHRVLDKITDTLIHLMAKAGLTLQQQHQLAQLLLILSHIR  
 HMSNKGMEHLYSMKCKNVVPLYDLLLEMLDAHRLHAPTSRGGASVEETDQSHLAT  
 AGSTSSHSLQKYYITGEAEGFPATV

**Purity** > 90% as determined by SDS-PAGE.

**Notes** Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.

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**Storage** The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.

**Concentration** A hardcopy of COA with reconstitution instruction is sent along with the products.

## GENE INFORMATION

**Gene Name** ESR1 estrogen receptor 1 [ Homo sapiens ]

**Official Symbol** ESR1

**Synonyms** ESR1; ESR; Era; NR3A1; ER-alpha; ER; ESRA; DKFZp686N23123;

**Gene ID** 2099

**mRNA Refseq** NM\_000125

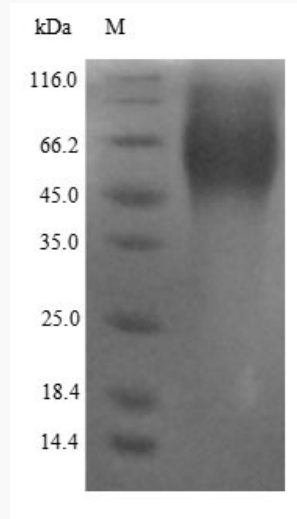
**Protein Refseq** NP\_000116

**UniProt ID** P03372

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(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

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