

Recombinant Human ESR1, His-tagged

Cat. No. ESR1-27977TH Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human ESR1 was expressed in Baculovirus-insect cell.
Species	Human
Source	Insect Cells
Description	This gene encodes an estrogen receptor, a ligand-activated transcription factor composed of several domains important for hormone binding, DNA binding, and activation of transcription. The protein localizes to the nucleus where it may form a homodimer or a heterodimer with estrogen receptor 2. Estrogen and its receptors are essential for sexual development and reproductive function, but also play a role in other tissues such as bone. Estrogen receptors are also involved in pathological processes including breast cancer, endometrial cancer, and osteoporosis. Alternative promoter usage and alternative splicing result in dozens of transcript variants, but the full-length nature of many of these variants has not been determined.
Form	Protein is stored in 20 mM Tris-Cl (pH 8.0), 20% Glycerol, 100 mM KCl, 1 mM DTT and 0.2 mM EDTA.
Molecular Mass	67.9 kDa.
AA Sequence	MTMTLHTKAS GMALLHQIQG NELEPLNRPQ LKIPLERPLG EVYLDSSKPA VYNYPEGAAAYEFNAAAAANA QVYGQTGLPY GPGSEAAAFG SNGLGGFPPL NSVSPSPLML LHPPPQLSPFLQPHGQQVPY YLENEPSGYT VREAGPPAFY RPNSDNRRQG GRERLASTND KGSMAMESAKETRYCAVCND YASGYHYGVW

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SCEGCKAFFK RSIQGHNDYM CPATNQCTID KNRRKSCQACRLRKCYEVGM
 MKGGIRKDRR GGRMLKHKRQ RDDGEGRGEV GSAGDMRAAN
 LWPSPLMIKRSKKNLALS LADQMVSAALL DAEPPILYSE YDPTRPFSEA
 SMMGLLTNLA DRELVHMINWAKRVPGFVDL TLHDQVHLLC CAWLEILMIG
 LVWRSMEHPG KLLFAPNLLL DRNQGKCVCEGMVEIFDMLLA TSSRFRMMNL
 QGEEFVCLKS IILLNSGVYT FLSSTLKSLE EKDHHRVLDKITDTLIHLM
 AKAGLTLQQQ HQRLAQLLLI LSHIRHMSNK GMEHLYSMKC
 KNVVPLYDLLLEMLDAHRLH APTSRGGASV EETDQSHLAT AGSTSSHSLQ
 KYYITGEAEG FPATV

Purity 0.9

Applications ER can be applied in DNA and protein-protein interaction assays. 1 unit is equal to 1 nanogram of purified protein. 20-100 units are sufficient for an in vitro transcription assay and 100 units are sufficient for a protein-protein interaction assay. For research use only.

Storage Stored at -70°C before use. Avoid repeated freeze thaw cycles.

GENE INFORMATION

Gene Name [ESR1 estrogen receptor 1 \[Homo sapiens \(human\) \]](#)

Official Symbol ESR1

Synonyms ESR1; estrogen receptor 1; ER; ESR; Era; ESRA; NR3A1; DKFZp686N23123; Estrogen receptor; ER-alpha; Nuclear receptor subfamily 3 group A member 1

Gene ID [2099](#)

mRNA Refseq [NM_000125](#)

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Protein Refseq	NP_000116
MIM	133430
UniProt ID	P03372
Chromosome Location	6q25.1
Pathway	Endocrine and other factor-regulated calcium reabsorption; Estrogen signaling pathway; FOXA1 transcription factor network
Function	RNA polymerase II core promoter proximal region sequence-specific DNA binding; RNA polymerase II core promoter proximal region sequence-specific DNA binding transcription factor activity involved in positive regulation of transcription; beta-catenin binding

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