

## estrogen receptor protein

<b>Catalog No :</b>	YD0123
<b>Reactivity :</b>	Human
<b>Applications :</b>	WB;SDS-PAGE
<b>Gene Name :</b>	ESR1 ESR NR3A1
<b>Protein Name :</b>	estrogen receptor protein
<b>Sequence :</b>	Amino acid: 395-595, with his-MBP tag.
<b>Human Gene Id :</b>	2099
<b>Human Swiss Prot No :</b>	P03372
<b>Mouse Swiss Prot No :</b>	P19785
<b>Formulation :</b>	Liquid in PBS
<b>Source :</b>	E.coli
<b>Dilution :</b>	WB 1:500-2000
<b>Concentration :</b>	SDS-PAGE >90%
<b>Storage Stability :</b>	-20 °C/6 month, -80 °C for long storage
<b>Background :</b>	<p>domain:Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal steroid-binding domain.,function: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.,online information:Estrogen receptor entry,polymorphism:Genetic variations in ESR1 are correlated with bone mineral density (BMD). Low BMD is a risk factor for osteoporotic fracture. Osteoporosis is characterized by reduced bone mineral density, disruption of bone microarchitecture, and the alteration of the amount and variety of non-collagenous proteins in bone. Osteoporotic bones are more at risk of fracture.,PTM:Glycosylated; contains N-acetylglucosamine, probably O-</p>

linked.,PTM:Phosphorylated by cyclin A/CDK2. Phosphorylation probably enhances transcriptional activity.,similarity:Belongs to the nuclear hormone receptor family.,similarity:Belongs to the nuclear hormone receptor family. NR3 subfamily.,similarity:Contains 1 nuclear receptor DNA-binding domain.,subunit:Interacts with SLC30A9 (By similarity). Binds DNA as a homodimer. Can form a heterodimer with ESR2. Interacts with NCOA3, NCOA5 and NCOA6 coactivators, leading to a strong increase of transcription of target genes. Interacts with NCOA7 in a ligand-inducible manner. Interacts with PHB2, PELP1 and UBE1C. Interacts with AKAP13. Interacts with CUEDC2. Interacts with KDM5A. Interacts with SMARD1. Interacts with HEXIM1 and MAP1S. Interacts with PBXIP1. Interaction with MUC1 is stimulated by 7 beta-estradiol (E2) and enhances ERS1-mediated transcription. Interacts with DNTTIP2, FAM120B and UIMC1. Interacts with isoform 4 of TXNRD1. Interacts with MLL2. Interacts with ATAD2 and this interaction is enhanced by estradiol.,

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**Function :**

transcription, transcription, DNA-dependent, regulation of transcription, DNA-dependent, anti-apoptosis, intracellular signaling cascade, response to endogenous stimulus, response to hormone stimulus, positive regulation of signal transduction, response to organic substance, positive regulation of macromolecule metabolic process, positive regulation of gene expression, positive regulation of cell communication, regulation of cell death, steroid hormone receptor signaling pathway, estrogen receptor signaling pathway, intracellular receptor-mediated signaling pathway, RNA biosynthetic process, regulation of apoptosis, negative regulation of apoptosis, regulation of programmed cell death, negative regulation of programmed cell death, regulation of neuron apoptosis, neuroprotection, response to estrogen stimulus, regulation of transcription, regulation of survival gene product expression, pos

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**Subcellular Location :**

[Isoform 1]: Nucleus . Cytoplasm . Cell membrane ; Peripheral membrane protein ; Cytoplasmic side . A minor fraction is associated with the inner membrane.; [Isoform 3]: Nucleus. Cytoplasm. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell membrane; Single-pass type I membrane protein. Associated with the inner membrane via palmitoylation (Probable). At least a subset exists as a transmembrane protein with a N-terminal extracellular domain. .; Nucleus. Golgi apparatus. Cell membrane. Colocalizes with ZDHHC7 and ZDHHC21 in the Golgi apparatus where most probably palmitoylation occurs. Associated with the plasma membrane when palmitoylated.

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**Expression :**

Widely expressed (PubMed:10970861). Not expressed in the pituitary gland (PubMed:10970861). ; [Isoform 3]: Widely expressed, however not expressed in the pituitary gland.

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