

ER Alpha / Estrogen Receptor Antibody (C-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS12377**Specification**

ER Alpha / Estrogen Receptor Antibody (C-Terminus) - Product Information

Application	IHC
Primary Accession	P03372
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	66kDa KDa

ER Alpha / Estrogen Receptor Antibody (C-Terminus) - Additional Information**Gene ID** 2099**Other Names**

Estrogen receptor, ER, ER-alpha, Estradiol receptor, Nuclear receptor subfamily 3 group A member 1, ESR1, ESR, NR3A1

Reconstitution & Storage

Store at -20°C. Aliquot to avoid freeze/thaw cycles.

Precautions

ER Alpha / Estrogen Receptor Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

ER Alpha / Estrogen Receptor Antibody (C-Terminus) - Protein Information**Name** ESR1**Synonyms** ESR, NR3A1**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. 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 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. Essential for MTA1-mediated transcriptional regulation of BRCA1 and BCAS3 (PubMed:17922032). Maintains neuronal survival in response to ischemic reperfusion injury when in the presence of circulating estradiol (17-beta-estradiol/E2) (By similarity).

Cellular Location

[Isoform 1]: Nucleus {ECO:0000255|PROSITE- ProRule:PRU00407, ECO:0000269|PubMed:12682286, ECO:0000269|PubMed:20074560}. Cytoplasm. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Note=A minor fraction is associated with the inner membrane Nucleus. Golgi apparatus. Cell membrane. Note=Colocalizes with ZDHHC7 and ZDHHC21 in the Golgi apparatus where most probably palmitoylation occurs. Associated with the plasma membrane when palmitoylated

Tissue Location

Widely expressed (PubMed:10970861). Not expressed in the pituitary gland (PubMed:10970861)

Volume

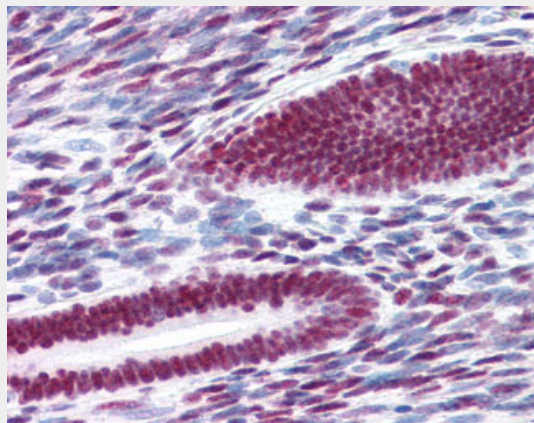
50 µl

ER Alpha / Estrogen Receptor Antibody (C-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ER Alpha / Estrogen Receptor Antibody (C-Terminus) - Images



Anti-Estrogen Receptor antibody IHC of human uterus.

ER Alpha / Estrogen Receptor Antibody (C-Terminus) - Background

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- κ -B in a cell-type specific manner. Decreases NF- κ -B DNA-binding activity and inhibits NF- κ -B-mediated transcription from the IL6 promoter and displace RELA/p65 and associated coregulators from the promoter. Recruited to the NF- κ -B response element of the CCL2 and IL8 promoters and can displace CREBBP. Present with NF- κ -B components RELA/p65 and NFKB1/p50 on ERE sequences. Can also act synergistically with NF- κ -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.

ER Alpha / Estrogen Receptor Antibody (C-Terminus) - References

- Green S., et al. *Nature* 320:134-139(1986).
Greene G.L., et al. *Science* 231:1150-1154(1986).
Pink J.J., et al. *Nucleic Acids Res.* 24:962-969(1996).
Bechtel S., et al. *BMC Genomics* 8:399-399(2007).
Wang Z., et al. *Biochem. Biophys. Res. Commun.* 336:1023-1027(2005).