

# Estrogen Receptor $\alpha$ antibody

Mouse Monoclonal Antibody (Mab)

Catalog # AD80532

## Product Information

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Application	IHC
Primary Accession	<a href="#">P03372</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	281O4L3
Calculated MW	66216

## Additional Information

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Gene ID	2099
Other Names	Estrogen receptor, ER, ER-alpha, Estradiol receptor, Nuclear receptor subfamily 3 group A member 1, ESR1, ESR, NR3A1
Dilution	IHC~~1:100~500
Storage	Maintain refrigerated at 2-8°C.

## Protein Information

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Name	ESR1
Synonyms	ESR, NR3A1
Function	<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 on ERE sequences. Can also act synergistically with NF-kappa-B to activate transcription involving respective recruitment adjacent response elements; the function involves</p>

	<p>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:<a href="#">17922032</a>). Maintains neuronal survival in response to ischemic reperfusion injury when in the presence of circulating estradiol (17-beta-estradiol/E2) (By similarity).</p>
<b>Cellular Location</b>	<p>[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</p>
<b>Tissue Location</b>	<p>Widely expressed (PubMed:10970861). Not expressed in the pituitary gland (PubMed:10970861)</p>

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