ERalpha Antibody – Polyclonal

PRODUCT OVERVIEW

Product Name	ERalpha, Polyclonal Antibody
Full Product Name	ERalpha Polyclonal Antibody
Product Gene Name	anti-ERalpha antibody
Clonality	Polyclonal
Molecular Weight	35,547 Da
OMIM	133430
3D Structure	ModBase 3D Structure for P03372
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for anti-ERalpha antibody	MBS8522614 is an antibody targeting ERalpha. Also known as ERalpha Polyclonal Antibody.
Other Notes	Small volumes of anti-ERalpha antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ERalpha. It may not necessarily be applicable to this product.

NCBI GI #	62821794
NCBI GeneID	2099
NCBI Accession #	NP_000116.2
UniProt Primary Accession #	P03372
UniProt Secondary Accession #	Q13511; Q14276; Q5T5H7; Q6MZQ9; Q9NU51; Q9UDZ7; Q9UIS7
UniProt Related Accession #	P03372
GenBank Nucleotide #	NM_000125.3
NCBI Official Full Name	estrogen receptor isoform 1
NCBI Official Synonym Full Names	estrogen receptor 1
NCBI Official Symbol	ESR1
NCBI Official Synonym Symbols	ER; ESR; Era; ESRA; ESTRR; NR3A1
UniProt Protein Name	Estrogen receptor
UniProt Synonym Protein Names	ER-alpha; Estradiol receptor; Nuclear receptor subfamily 3 group A member 1
UniProt Gene Name	ESR1
UniProt Synonym Gene Names	ESR; NR3A1; ER
NCBI Protein Information	estrogen receptor

NCBI Summary for ERalpha	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. [provided by RefSeq, Mar 2014]
UniProt Comments for ERalpha	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. 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.
Research Articles on ERalpha	**1.** the performance of the assay, in terms of sensitivity and reproducibility, was studied using undiluted calf serum, and excellent recoveries in the range of 94.7-108% were achieved for the detection of ERalpha in MCF-7 cell lysate.
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