

## Anti-ER alpha Antibody (6B371)

## Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	6B371
Purification:	Affinity-chromatography

## Applications

Verified Activity:	IHC image of TMAH-00405 diluted at 1:100 and staining in paraffin-embedded human breast cancer performed on a Leica Bond <sup>TM</sup> system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.
Application:	ELISA, IHC
Recommended	IHC:1:50-1:200.

## Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	A synthetic peptide: Human ER alpha
Antigen Species:	Human
Gene ID:	2099
Uniprot ID:	P03372
Synonyms:	ER;NR3A1;estrogen receptor $\alpha$ ;Nuclear Receptor Subfamily 3 Group A Member 1;ER alpha; Estradiol Receptor;ESR;ER- $\alpha$ ;ER-Alpha;Estrogen Receptor;ESR1;ER $\alpha$ ;estrogen receptor alpha
Biology Area:	Epigenetics and Nuclear Signaling, Neuroscience, Cancer, Signal transduction

## Research 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-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-

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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. 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. Binds to ERE and inhibits isoform 1.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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