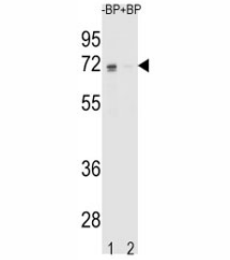
ER Antibody (F47454)

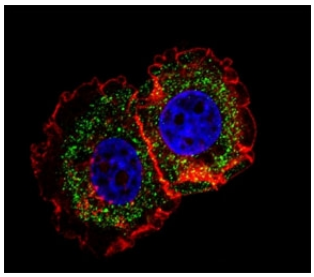
Catalog No.	Formulation	Size
F47454-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F47454-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat, Pig
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P03372
Applications	Western blot: 1:1000 Immunofluorescence: 1:10-1:50
Limitations	This ER antibody is available for research use only.



Western blot analysis of ER antibody pre-incubated without (Lane 1) and with (2) blocking peptide in K562 lysate. Predicted molecular weight: 65-70 kDa.



ER Antibody IF. Fluorescent confocal image of MCF-7 cell stained with ER antibody at 1:25. Immunoreactivity is localized to the cytoplasm.

Description

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 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. [UniProt]

For a microarray-validated Estrogen receptor alpha antibody supporting high-specificity detection, see clone ESR1/3557.

Application Notes

Titration of the ER antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 452-480 from the human protein was used as the immunogen for this ER antibody (isoform 1).

Storage

Aliquot the ER antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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