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PRODUCT DATASHEET

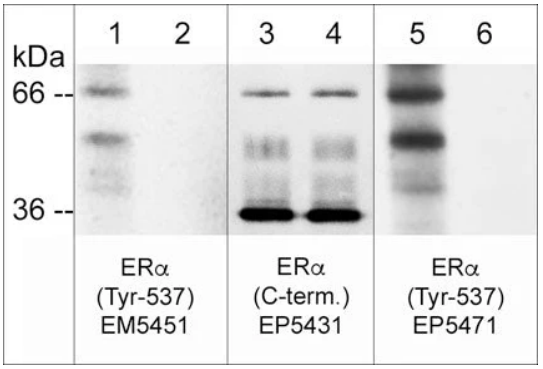
Anti-Estrogen Receptor α (Tyr-537), Phosphospecific Antibody

Product Details

Available Variants	100 µL (SKU:EP5471)
Conjugate	Unconjugated
Isotype	IgG
Gene Name	ESR1
Host Species	Rabbit
Format	Antigen Affinity Purified
Physical State	Liquid
Buffer	PBS + 1 mg/ml BSA, 0.05% NaN3 and 50% glycerol
Applications	ELISA, WB
Dilution Ranges	WB: 1:1000
Species Reactivity	Chicken, Frog, Human, Mouse, Rat
Immunogen	Phospho-ERα (Tyr-537) synthetic peptide (coupled to carrier protein) corresponds to amino acids surrounding Tyr-537 in human ERα. This sequence is well conserved in rat and mouse ERα, and is also well conserved in ERβ (Tyr-488).
Specificity	The antibody was cross-adsorbed to unphosphorylated ERα (Tyr-537) peptide before affinity purification using phospho-ERα (Tyr-537) peptide (without carrier). This antibody detects several forms of ERα ranging from 66 to 35 kDa* on SDS-PAGE immunoblots of MCF-7 cells treated with pervanadate, and this reactivity is removed after alkaline phosphatase treatment.
Molecular Weight	35-66
Quality Control	Western blots performed on each lot.

Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
UniProt ID	P03372 UniProt Summary: 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. Maintains neuronal survival in response to ischemic reperfusion injury when in the presence of circulating estradiol (17-beta-estradiol/E2).
Country of Origin	United States
Shipping	Blue Ice
Expiration	After date of receipt, stable for at least 1 year at -20°C.
Usage Statement	For research use only. Not intended for therapeutic or diagnostic use. Use of all products is subject to our terms and conditions, which can be viewed on our website.
Post Translational Modification Type	Phosphorylated
Post Translational Modification Residue	Tyr-537
NCBI Gene ID	2099

Product Images



Western blot image of human MCF-7 cells treated with pervanadate (1 mM) for 30 min. (lanes 1-6). Some lanes of the blot were then treated with alkaline phosphatase (lanes 2, 4, & 6). The blot was probed with mouse monoclonal anti-ERα (Tyr-537) phospho-specific (lanes 1 & 2), rabbit polyclonal anti-ERα (C-terminus) (lanes 3 & 4), and rabbit polyclonal anti-ERα (Tyr-537) phospho-specific (lanes 5 & 6).