ARG51576
anti-Estrogen Receptor alpha phospho (Ser167) antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Estrogen Receptor alpha phospho (Ser167)
Tested Reactivity	Hu, Ms
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Estrogen Receptor alpha
Species	Human
Immunogen	Peptide sequence around phosphorylation site of serine 167 (L-A-S(p)-T-N) derived from Human Estrogen Receptor-α.
Conjugation	Un-conjugated
Alternate Names	ESTRR; NR3A1; ESR; Estradiol receptor; Era; Estrogen receptor; ESRA; ER-alpha; Nuclear receptor subfamily 3 group A member 1; ER

Application Instructions

Application table

Application	Dilution
ICC/IF	1:100 - 1:200
IHC-P	1:50 - 1:100
WB	1:500 - 1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

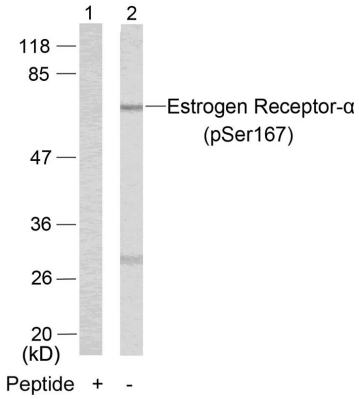
Form	Liquid
Purification	Antibodies were produced by immunizing rabbits with KLH-conjugated synthetic phosphopeptide. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. In addition, non-phospho specific antibodies were removed by chromatogramphy using non-phosphopeptide.
Buffer	PBS (without Mg2+ and Ca2+, pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

	and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

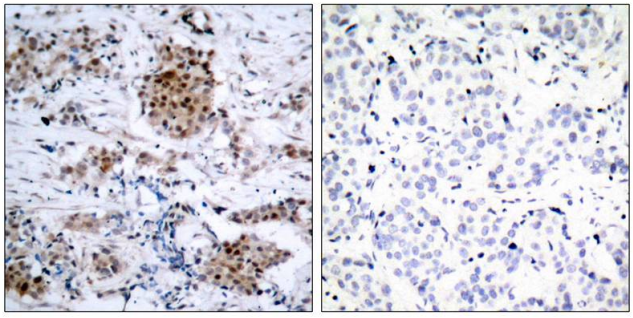
Database links	GeneID: 13982 Mouse GeneID: 2099 Human Swiss-port # P03372 Human Swiss-port # P19785 Mouse
Gene Symbol	ESR1
Gene Full Name	estrogen receptor 1
Background	Nuclear hormone receptor. The steroid hormones and their receptors are involved in the regulation of eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues.
Function	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. [UniProt]
Research Area	Cancer antibody; Gene Regulation antibody; Neuroscience antibody; Signaling Transduction antibody
Calculated Mw	66 kDa
PTM	Phosphorylated by cyclin A/CDK2 and CK1. Phosphorylation probably enhances transcriptional activity. Self-association induces phosphorylation. Dephosphorylation at Ser-118 by PPP5C inhibits its transactivation activity. Phosphorylated by LMTK3 in vitro. Glycosylated; contains N-acetylglucosamine, probably O-linked. Ubiquitinated; regulated by LATS1 via DCAF1 it leads to ESR1 proteasomal degradation (PubMed:21602804, PubMed:28068668). Deubiquitinated by OTUB1 (PubMed:19383985). Dimethylated by PRMT1 at Arg-260. The methylation may favor cytoplasmic localization. Palmitoylated (isoform 3). Not biotinylated (isoform 3). Palmitoylated by ZDHHC7 and ZDHHC21. Palmitoylation is required for plasma membrane targeting and for rapid intracellular signaling via ERK and AKT kinases and cAMP generation, but not for signaling mediated by the nuclear hormone receptor.

Images



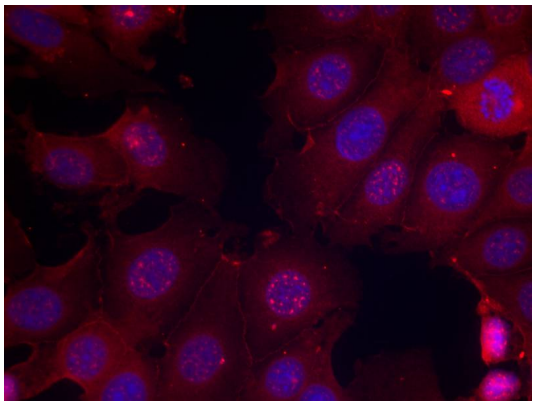
ARG51576 anti-Estrogen Receptor alpha phospho (Ser167) antibody WB image

Western blot: Extracts from MCF7 cells stained with ARG51576 anti-Estrogen Receptor alpha phospho (Ser167) antibody (Lane 2) and the same antibody preincubated with blocking peptide (Lane1).



ARG51576 anti-Estrogen Receptor alpha phospho (Ser167) antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human breast carcinoma tissue stained with ARG51576 anti-Estrogen Receptor alpha phospho (Ser167) antibody (left) or the same antibody preincubated with blocking peptide (right).



ARG51576 anti-Estrogen Receptor alpha phospho (Ser167) antibody ICC/IF image

Immunofluorescence: methanol-fixed MCF cells stained with ARG51576 anti-Estrogen Receptor alpha phospho (Ser167) antibody.