

**Phospho-ER alpha (S118) Antibody**  
**Rabbit mAb**  
**Catalog # AP90627****Specification****Phospho-ER alpha (S118) Antibody - Product Information**

Application	WB, IHC, ICC
Primary Accession	<a href="#">P03372</a>
Clonality	Monoclonal
<b>Other Names</b>	
ESR1; Era; Eralpha; Estrogen receptor; Estradiol receptor; ER-alpha; Estrogen receptor 1; NR3A1; ER; ESR; ESRA; Estrogen receptor alpha;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	66216 Da

**Phospho-ER alpha (S118) Antibody - Additional Information**

Dilution	WB~~1:1000 IHC~~1:100~500 ICC~~N/A
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human ER alpha
Description	Estrogen receptor $\alpha$ (ER $\alpha$ ), a member of the steroid receptor superfamily, contains highly conserved DNA binding (DBD) and ligand binding domains (LBD). Through its estrogen-independent and estrogen-dependent activation domains (AF-1 and AF-2, respectively), ER $\alpha$ regulates transcription by recruiting coactivator proteins and interacting with general transcriptional machinery. Phosphorylation provides an important mechanism to regulate ER $\alpha$ activity. ER $\alpha$ is phosphorylated on multiple sites.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

**Phospho-ER alpha (S118) Antibody - Protein Information****Name** ESR1**Synonyms** ESR, NR3A1

**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. Essential for MTA1-mediated transcriptional regulation of BRCA1 and BCAS3 (PubMed:<a href="http://www.uniprot.org/citations/17922032" target="\_blank">17922032</a>). Maintains neuronal survival in response to ischemic reperfusion injury when in the presence of circulating estradiol (17-beta-estradiol/E2) (By similarity).

**Cellular Location**

[Isoform 1]: Nucleus {ECO:0000255|PROSITE- ProRule:PRU00407, ECO:0000269|PubMed:12682286, ECO:0000269|PubMed:20074560}. Cytoplasm. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Note=A minor fraction is associated with the inner membrane Nucleus. Golgi apparatus. Cell membrane. Note=Colocalizes with ZDHHC7 and ZDHHC21 in the Golgi apparatus where most probably palmitoylation occurs. Associated with the plasma membrane when palmitoylated

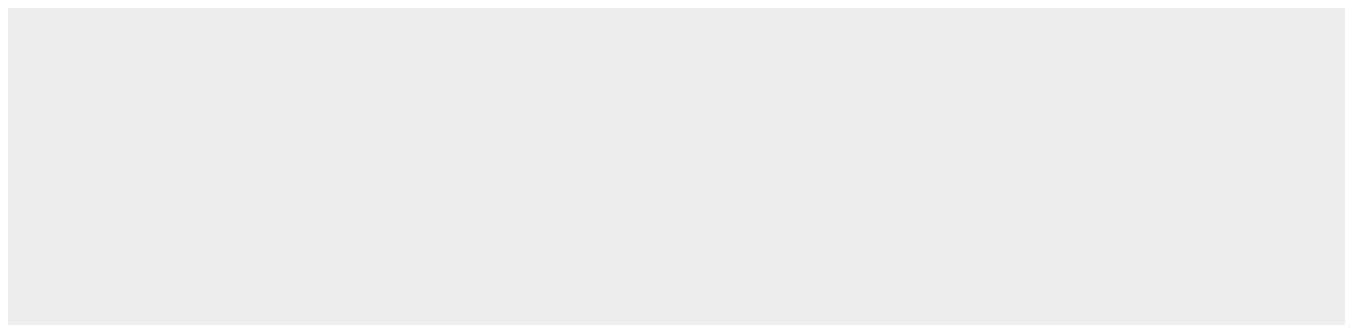
**Tissue Location**

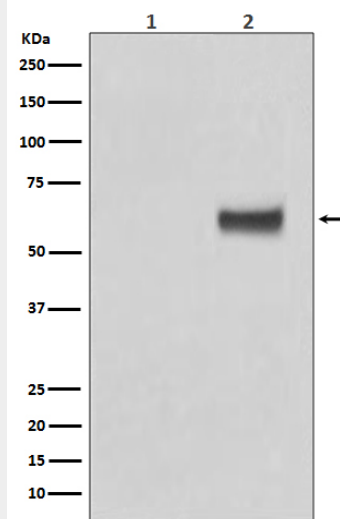
Widely expressed (PubMed:10970861). Not expressed in the pituitary gland (PubMed:10970861)

**Phospho-ER alpha (S118) Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Phospho-ER alpha (S118) Antibody - Images**



Western blot analysis of Phospho-ER alpha (S118) expression in (1) MCF7 cell lysate; (2) MCF7 cell lysate treated with b-Estradiol and EGF.