10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Phospho-ER alpha (S118) Antibody
Rabbit mAb
Catalog # AP90627

Specification

Phospho-ER alpha (S118) Antibody - Product Information

Application	**WB, IHC, ICC**
Primary Accession	P03372
Clonality	**Monoclonal**

Other Names
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

Purification	**Affinity-chromatography**
Immunogen	**A synthesized peptide derived from human ER alpha**
Description	**Estrogen receptor α (ERα), 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), ERα regulates transcription by recruiting coactivator proteins and interacting with general transcriptional machinery. Phosphorylation provides an important mechanism to regulate ERα activity. ERα 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:17922032). 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 Cytomety
- Cell Culture

Phospho-ER alpha (S118) Antibody - Images

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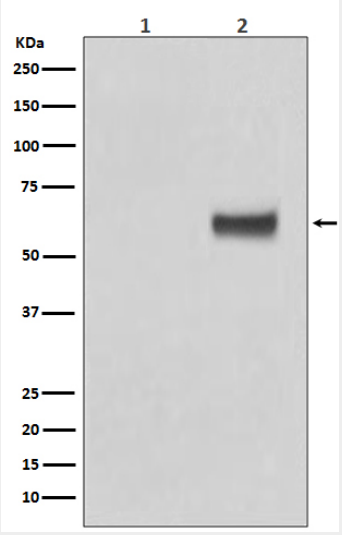

Western blot analysis of Phospho-ER alpha (S118) expression in (1) MCF7 cell lysate; (2) MCF7 cell lysate treated with b-Estradiol and EGF.