

## **Estrogen Receptor, alpha (Marker of Estrogen Dependence) Antibody - With BSA and Azide**

**Mouse Monoclonal Antibody [Clone ESR1/420 ]**  
**Catalog # AH11191**

### **Specification**

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## **Estrogen Receptor, alpha (Marker of Estrogen Dependence) Antibody - With BSA and Azide - Product Information**

Application	<b>,1,3,4,</b>
Primary Accession	<a href="#">P03372</a>
Other Accession	<a href="#">2099, 208124</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>Mouse / IgG2a</b>
Calculated MW	<b>~67kDa KDa</b>

## **Estrogen Receptor, alpha (Marker of Estrogen Dependence) Antibody - With BSA and Azide - Additional Information**

**Gene ID** 2099

### **Other Names**

Estrogen receptor, ER, ER-alpha, Estradiol receptor, Nuclear receptor subfamily 3 group A member 1, ESR1, ESR, NR3A1

### **Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

### **Precautions**

Estrogen Receptor, alpha (Marker of Estrogen Dependence) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

## **Estrogen Receptor, alpha (Marker of Estrogen Dependence) Antibody - With BSA and Azide - 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)

### **Estrogen Receptor, alpha (Marker of Estrogen Dependence) Antibody - With BSA and Azide - 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](#)

### **Estrogen Receptor, alpha (Marker of Estrogen Dependence) Antibody - With BSA and Azide - Images**

### **Estrogen Receptor, alpha (Marker of Estrogen Dependence) Antibody - With BSA and Azide - Background**

This MAb is specific to ER alpha and shows minimal cross-reaction with other members of the family. Epitope of this MAb is mapped between aa300-550. ER is an important regulator of growth and differentiation in the mammary gland. Presence of ER in breast tumors indicates an increased likelihood of response to anti-estrogen (e.g. tamoxifen) therapy.

### **Estrogen Receptor, alpha (Marker of Estrogen Dependence) Antibody - With BSA and Azide - References**

Zafrani B, et. al. Histopathology 2000; 37(6), 536-545. | Harvey JM, et. al. Journal of Clinical Oncology 1999; 17(5), 1474-1481