

**Estrogen Receptor (Marker of Estrogen Dependence) Antibody - With BSA and Azide  
Mouse Monoclonal Antibody [Clone SPM567 ]  
Catalog # AH10445**

**Specification**

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

Application	,1,14,
Primary Accession	<a href="#">P03372</a>
Other Accession	<a href="#">2099</a> , <a href="#">208124</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	~67kDa KDa

**Estrogen Receptor (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

**Format**

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

**Storage**

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

**Precautions**

Estrogen Receptor (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 (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

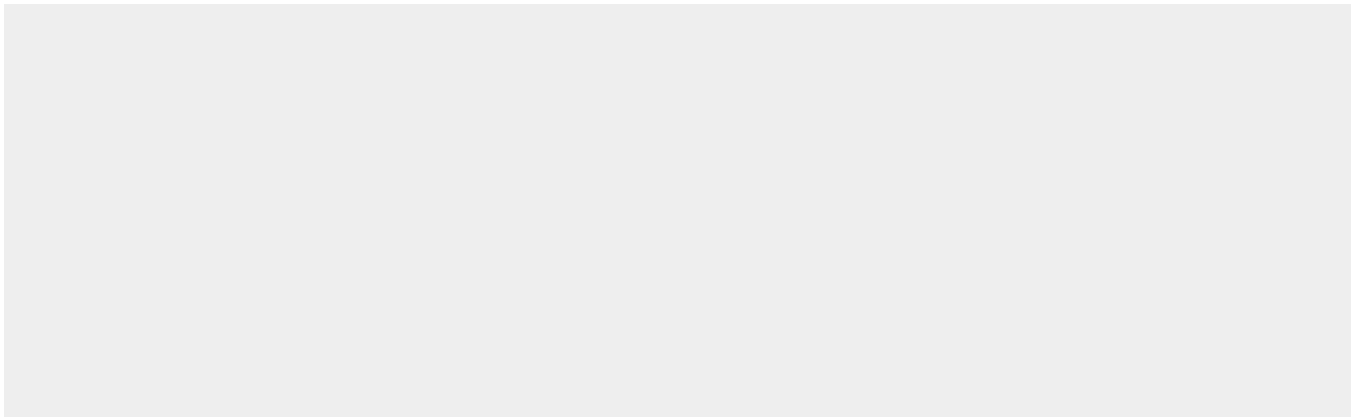
Widely expressed (PubMed:10970861). Not expressed in the pituitary gland (PubMed:10970861)

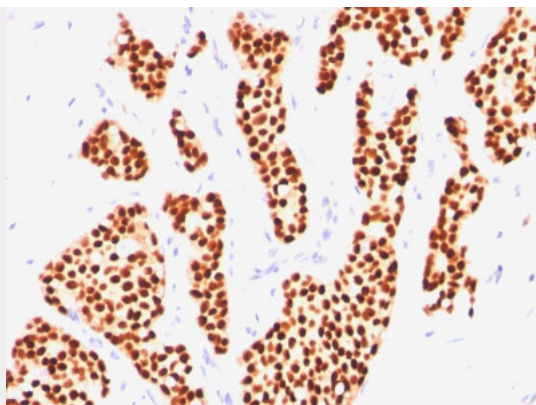
#### Estrogen Receptor (Marker of Estrogen Dependence) Antibody - With BSA and Azide - Protocols

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

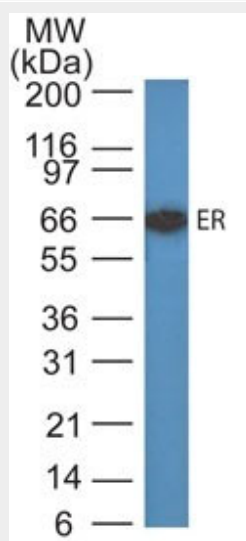
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

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





Formalin-fixed, paraffin-embedded human Breast Carcinoma stained with Estrogen Receptor Monoclonal Antibody (SPM567).



Western Blot of Estrogen Receptor in MCF-7 Lysate using Estrogen Receptor Ab (SPM567).

### **Estrogen Receptor (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. 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. This MAb is excellent for staining of formalin-fixed, paraffin-embedded breast carcinomas.

### **Estrogen Receptor (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