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

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

Specification

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

Application	**,1,3,4,**
Primary Accession	P03372
Other Accession	2099, 208124
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG2a**
Calculated MW	**~67kDa KDa**

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:17922032).

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 Cytomety
- 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