

# Anti-Estrogen Receptor Picoband Antibody

Catalog # ABO11883

## Product Information

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|--------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB, IHC-P                                                                                             |
| <b>Primary Accession</b> | <a href="#">P03372</a>                                                                                |
| <b>Host</b>              | Rabbit                                                                                                |
| <b>Reactivity</b>        | Human                                                                                                 |
| <b>Clonality</b>         | Polyclonal                                                                                            |
| <b>Format</b>            | Lyophilized                                                                                           |
| <b>Description</b>       | Rabbit IgG polyclonal antibody for Estrogen receptor(ESR1) detection. Tested with WB, IHC-P in Human. |
| <b>Reconstitution</b>    | Add 0.2ml of distilled water will yield a concentration of 500ug/ml.                                  |

## Additional Information

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| <b>Gene ID</b>                  | 2099                                                                                                                                                                                                                |
| <b>Other Names</b>              | Estrogen receptor, ER, ER-alpha, Estradiol receptor, Nuclear receptor subfamily 3 group A member 1, ESR1, ESR, NR3A1                                                                                                |
| <b>Calculated MW</b>            | 66216                                                                                                                                                                                                               |
| <b>Application Details</b>      | Immunohistochemistry(Paraffin-embedded Section), 0.5-1 $\mu$ g/ml, Human, By Heat<br>Western blot, 0.1-0.5 $\mu$ g/ml, Human                                                                                        |
| <b>Subcellular Localization</b> | Isoform 1: Nucleus . Cytoplasm . Cell membrane ; Peripheral membrane protein ; Cytoplasmic side . A minor fraction is associated with the inner membrane.                                                           |
| <b>Tissue Specificity</b>       | Widely expressed. Isoform 3 is not expressed in the pituitary gland. .                                                                                                                                              |
| <b>Source</b>                   | Eukaryota                                                                                                                                                                                                           |
| <b>Protein Name</b>             | Estrogen receptor                                                                                                                                                                                                   |
| <b>Contents</b>                 | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .                                                                                                          |
| <b>Immunogen</b>                | E.coli-derived human Estrogen Receptor recombinant protein (Position: F425-V595). Human Estrogen Receptor shares 89% and 88% amino acid (aa) sequences identity with mouse and rat Estrogen Receptor, respectively. |
| <b>Purification</b>             | Immunogen affinity purified.                                                                                                                                                                                        |
| <b>Cross Reactivity</b>         | No cross reactivity with other proteins                                                                                                                                                                             |

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| <b>Storage</b>               | At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing. |
| <b>Sequence Similarities</b> | Belongs to the nuclear hormone receptor family. NR3 subfamily.                                                                                                                        |

## Protein Information

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| <b>Name</b>              | ESR1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Synonyms</b>          | ESR, NR3A1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Function</b>          | 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="#">17922032</a> ). Maintains neuronal survival in response to ischemic reperfusion injury when in the presence of circulating estradiol (17-beta-estradiol/E2) (By similarity). |
| <b>Cellular Location</b> | [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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Tissue Location</b>   | Widely expressed (PubMed:10970861). Not expressed in the pituitary gland (PubMed:10970861)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Background

Estrogen receptor alpha (ER-  $\alpha$ ), also known as NR3A1, is one of two main types of estrogen receptor, a nuclear receptor that is activated by the sex hormone estrogen. Estrogen receptors are involved in pathological processes including breast cancer, endometrial cancer, and osteoporosis. In humans, ER-  $\alpha$  is encoded by the gene ESR1 (Estrogen Receptor 1). It is mapped to 6q25.1. This gene is a ligand-activated transcription factor composed of several domains important for hormone binding, DNA binding, and activation of transcription. The protein localizes to the nucleus where it may form a homodimer or a heterodimer with estrogen receptor 2. Estrogen and its receptors are essential for sexual development and reproductive function, it also play a role in other tissues such as bone.

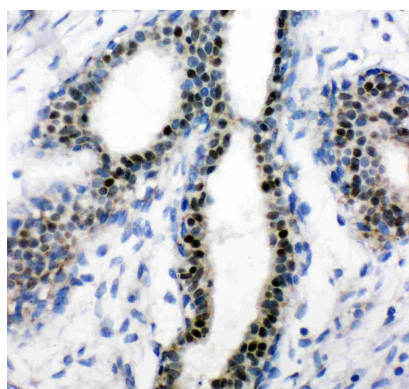
## Images



Anti- Estrogen Receptor antibody, ABO11883, Western blotting  
All lanes: Anti Estrogen Receptor (ABO11883) at 0.5ug/ml  
WB: Recombinant Human ER Protein 0.5ng  
Predicted bind size: 37KD  
Observed bind size: 37KD



Anti- Estrogen Receptor antibody, ABO11883, Western blotting  
All lanes: Anti Estrogen Receptor (ABO11883) at 0.5ug/ml  
WB: MCF-7 Whole Cell Lysate at 40ug  
Predicted bind size: 66KD  
Observed bind size: 66KD



Anti- Estrogen Receptor antibody, ABO11883, IHC(P)  
IHC(P): Human Mammary Cancer Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.