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

Anti-Estrogen Receptor Picoband Antibody

Catalog # ABO11883

Specification

Anti-Estrogen Receptor Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	P03372
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Estrogen receptor(ESR1) detection. Tested with WB, IHC-P in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Estrogen Receptor Picoband Antibody - 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

Calculated MW
66216 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Isoform 1: Nucleus . Cytoplasm . Cell membrane ; Peripheral membrane protein ; Cytoplasmic side . A minor fraction is associated with the inner membrane.

Tissue Specificity
Widely expressed. Isoform 3 is not expressed in the pituitary gland. .

Protein Name
Estrogen receptor

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
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.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**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.**

Sequence Similarities
Belongs to the nuclear hormone receptor family. NR3 subfamily.

Anti-Estrogen Receptor Picoband 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

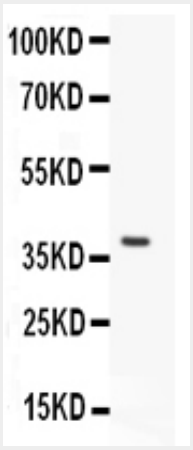
Tissue Location
Widely expressed (PubMed:10970861). Not expressed in the pituitary gland (PubMed:10970861)

Anti-Estrogen Receptor Picoband Antibody - Protocols

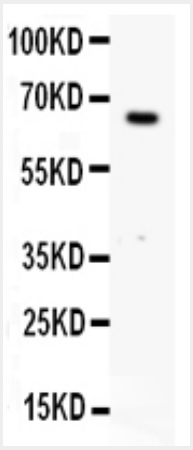
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Estrogen Receptor Picoband Antibody - Images

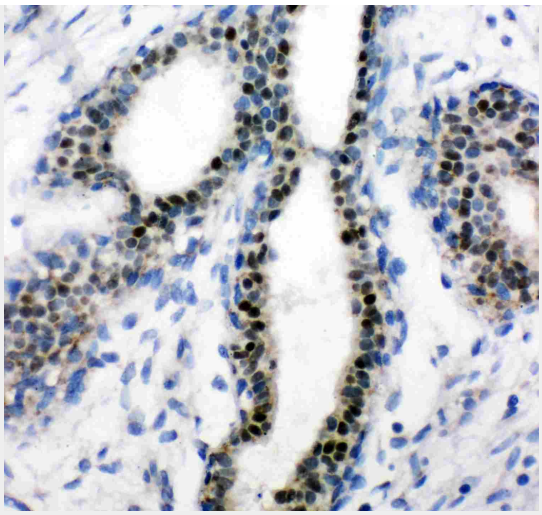


Anti- Estrogen Receptor antibody, ABO11883, Western blottingAll lanes: Anti Estrogen Receptor (ABO11883) at 0.5ug/mlWB: Recombinant Human ER Protein 0.5ngPredicted bind size: 37KDObserved bind size: 37KD



Anti- Estrogen Receptor antibody, ABO11883, Western blottingAll lanes: Anti Estrogen Receptor (ABO11883) at 0.5ug/mlWB: MCF-7 Whole Cell Lysate at 40ugPredicted bind size: 66KDObserved bind size: 66KD

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



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

Anti-Estrogen Receptor Picoband Antibody - Background

Estrogen receptor alpha (ER-Î±), 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-Î± 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.