

**Anti-Estrogen Receptor Picoband Antibody**  
**Catalog # ABO11883****Specification**

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**Anti-Estrogen Receptor Picoband Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">P03372</a>
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<br>Western blot, 0.1-0.5 µg/ml, Human<br>

**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:<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**

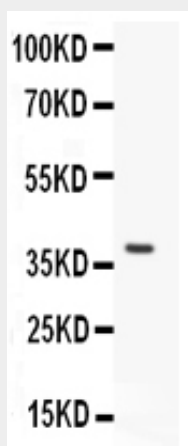
Widely expressed (PubMed:10970861). Not expressed in the pituitary gland (PubMed:10970861)

## Anti-Estrogen Receptor Picoband Antibody - Protocols

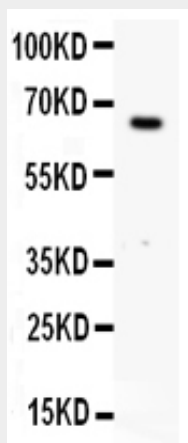
Provided below are standard protocols that you may find useful for product applications.

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

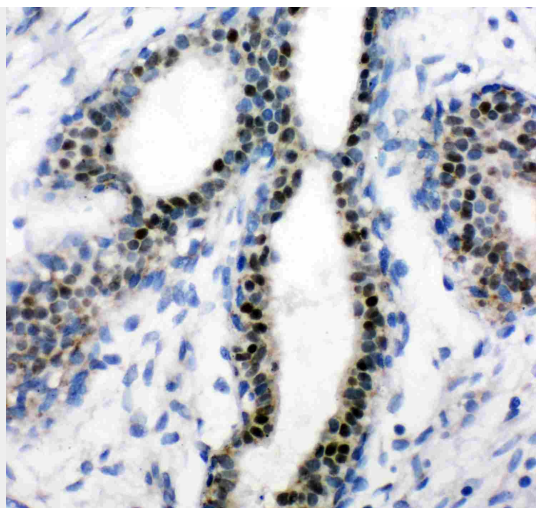
## Anti-Estrogen Receptor Picoband Antibody - Images



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



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

#### **Anti-Estrogen Receptor Picoband Antibody - 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.