

#### Anti-Estrogen Receptor $\alpha$ (Tyr-537), Phosphospecific Antibody Catalog # AN1788

### Specification

# Anti-Estrogen Receptor α (Tyr-537), Phosphospecific Antibody - Product Information

**Primary Accession** Reactivity Host Clonality Isotype Calculated MW

P03372 Bovine, Chicken, Drosophila, C.Elegans Rabbit **Rabbit Polyclonal** lgG 66216

### Anti-Estrogen Receptor a (Tyr-537), Phosphospecific Antibody - Additional Information

2099

Gene ID **Other Names** ESR, ESR1, ESRA, Estradiol receptor, Eralpha, ER

#### **Target/Specificity**

Estrogen receptor  $\alpha$  (ER $\alpha$ ) is a member of the steroid receptor superfamily and its structure includes an N-terminal ligand-independent transactivation domain (AF-1), a highly conserved DNA binding domain, and a C-terminal ligand-dependent transactivation domain (AF-2). AF-1 and AF-2 activate transcription independently and synergistically, and act in a promoter- and cell-specific manner. Phosphorylation at multiple sites provides an important mechanism to regulate ER $\alpha$ activity. Ser-104, Ser-106, Ser-118, and Ser-167 are located in the amino-terminal transcription activation function domain AF-1, and phosphorylation of these serine residues plays an important role in regulating ER $\alpha$  activity. In addition to these sites, phosphorylation of Tyr-537 has been implicated in maximal hormone binding, dimerization, and transcriptional activity. Tyr-537, located in the AF-2 domain, is phosphorylated by c-Src leading to nuclear export of ER $\alpha$  and degradation. Thus, a variety of phosphorylation events control ER $\alpha$  activity.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

Anti-Estrogen Receptor  $\alpha$  (Tyr-537), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### Shipping Blue Ice

### Anti-Estrogen Receptor α (Tyr-537), Phosphospecific 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
- <u>Cell Culture</u>

Anti-Estrogen Receptor α (Tyr-537), Phosphospecific Antibody - Images



Western blot image of human MCF-7 cells treated with pervanadate (1 mM) for 30 min. (lanes 1-6). Some lanes of the blot were then treated with alkaline phosphatase (lanes 2, 4, & 6). The blot was probed with mouse monoclonal anti-ER $\alpha$  (Tyr-537) phospho-specific (lanes 1 & 2), rabbit polyclonal anti-ER $\alpha$  (C-terminus) (lanes 3 & 4), and rabbit polyclonal anti-ER $\alpha$  (Tyr-537) phospho-specific (lanes 5 & 6).

## Anti-Estrogen Receptor α (Tyr-537), Phosphospecific Antibody - Background

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