

Anti-Estrogen Receptor α (Tyr-537), Phosphospecific Antibody Catalog # AN1789

Specification

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

Primary Accession	P03372
Reactivity	Bovine, Chicken, Drosophila, C.Elegans
Host	Mouse
Clonality	Mouse Monoclonal
Isotype	IgG1
Calculated MW	66216

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

Gene ID **2099**

Other Names

ESR, ESR1, ESRA, Estradiol receptor, Eralpha, ER

Target/Specificity

Estrogen receptor α (ER α) 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 α 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 α 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 α and degradation. Thus, a variety of phosphorylation events control ER α 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 α (Tyr-537), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

Blue Ice

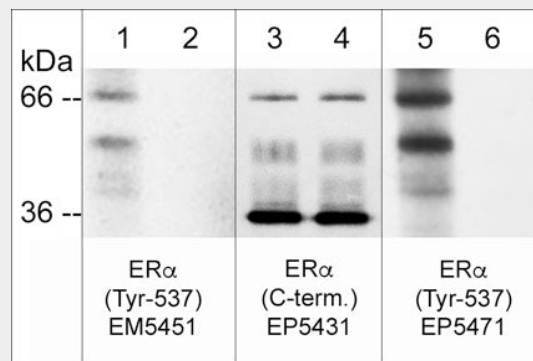
Anti-Estrogen Receptor α (Tyr-537), Phosphospecific Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)

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

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 α (Tyr-537) phospho-specific (lanes 1 & 2), rabbit polyclonal anti-ER α (C-terminus) (lanes 3 & 4), and rabbit polyclonal anti-ER α (Tyr-537) phospho-specific (lanes 5 & 6).

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

Estrogen receptor α (ER α) 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 α 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 α 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 α and degradation. Thus, a variety of phosphorylation events control ER α activity.