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

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

Catalog # AN1789

## Product Information

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|---|---|
| **Application** | WB |
| **Primary Accession** | P03372 |
| **Reactivity** | Rat |
| **Host** | Mouse |
| **Clonality** | Mouse Monoclonal |
| **Isotype** | IgG1 |
| **Clone Names** | M545 |
| **Calculated MW** | 66216 |

## Additional Information

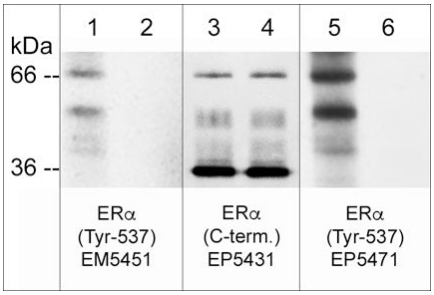
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|---|---|
| **Gene ID** | 2099 |
| **Other Names** | ESR, ESR1, ESRA, Estradiol receptor, Eralpha, ER |
| **Target/Specificity** | Estrogen receptor α (ERα) is a member of the steroid receptor superfamily and its structure includes an N-terminal ligand-independent 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 ERα 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 ERα 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 ERα and degradation. Thus, a variety of phosphorylation events control ERα activity. |
| **Dilution** | WB~~1:1000 |
| **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 |

## Background

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

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

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