



Anti-Estrogen Receptor- α (pSer¹⁶⁷)

CATALOG NO.: 28001-025

BACKGROUND:

The estrogen receptor α (ER α), a transcription factor that controls the expression of a number of genes involved in cellular differentiation and proliferation in a wide variety of tissues (1, 2), is regulated by ligand binding and phosphorylation. ER contains at least two transcriptionally active domains: constitutively active F-1 at the ER N-terminus of the protein and ligand-dependent AF-2 at the ER C-terminus (3, 4). Although ligand binding is considered essential for the full activation of ER, it has long been recognized that the receptor is subject to post-translational alterations, such as phosphorylation, which also regulated its activity (5). ER phosphorylation patterns appear to be cell type-specific. Serine 167 has been shown to be phosphorylated by p90rsk1 in vitro and to regulate ER AF-1-dependent transcriptional activation in vivo (6).

SOURCE & REACTIVITY:

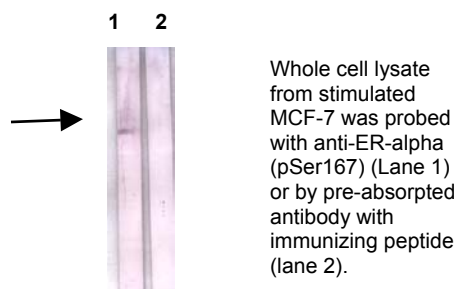
Rabbit anti-ER- α (pSer¹⁶⁷) polyclonal antibody was raised against a synthetic peptide (RLApSTND) corresponding to human ER at the phosphorylated site of Serine 167. This epitope affinity purified rabbit polyclonal antibody is specific for Estrogen Receptor phosphorylation at Serine 167. This antibody was evaluated for specificity with a dot blot assay using synthetic ER peptides. By immunoblot analysis, an immunoreactive band at ~60 kDa was detected in the estradiol-stimulated MCF-7 whole cell lysate. Species reactivity includes human, mouse, and rat, while others remain unknown.

APPLICATION:

The optimal antibody working concentrations for specific applications should be determined by the investigator. The following concentration ranges are recommended starting points for this product.

ELISA: 0.1-1.0 μ g/ml

Western Blot: 0.5-2.0 μ g/ml



This product is for research purposes only.

STORAGE:

This polyclonal antibody is supplied as an epitope affinity purified rabbit IgG, 50 μ g in 250 μ l of 1X PBS (pH 7.4) with 0.05% sodium azide. Store at 2-8 $^{\circ}$ C for up to one year. Avoid repeated freezing and thawing.

REFERENCES:

1. Blobel GA and Orkin SH (1996) *Mol. Cell. Biol.* 16: 1687-1694
2. Gaub MP et al (1990) *Cell* 63: 1267-1276.
3. Kraus WL, et al (1995) *Proc. Natl. Acad. Sci. U.S.A.* 92: 12314-12318.
4. McInerney Em et al (1996) *Proc. Natl. Acad. Sci. U.S.A.* 93: 10069-10073.
5. Rofatsky I et al (1999) *J. Biol. Chem.* 274 (32): 22296-22302.
6. Joel PB et al (1998) *Mol. Cell. Biol.* 18: 1978-1984.