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Phospho-Estrogen Receptor α Antibody Sampler Kit



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Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Estrogen Receptor α (D8H8) Rabbit mAb	8644	20 μ l	66 kDa	Rabbit IgG
Phospho-Estrogen Receptor α (Ser104/106) Antibody	2517	20 μ l	66 kDa	Rabbit
Phospho-Estrogen Receptor α (Ser118) (16J4) Mouse mAb	2511	20 μ l	66 kDa	Mouse IgG2b
Phospho-Estrogen Receptor α (Ser167) (D1A3) Rabbit mAb	5587	20 μ l	66 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 μ l		Goat
Anti-mouse IgG, HRP-linked Antibody	7076	100 μ l		Horse

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The Phospho-Estrogen Receptor α Antibody Sampler Kit provides an economical means to evaluate the activation status of ER α , including phosphorylation of Ser104/106, Ser167, and Ser118. The monoclonal control ER α antibody is also included to detect total Estrogen Receptor α levels. The kit contains enough primary antibody to perform four Western blot experiments.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C . Do not aliquot the antibody.

Background

Estrogen receptor α (ER α), a member of the steroid receptor superfamily, contains highly conserved DNA binding and ligand binding domains (1). Through its estrogen-independent and estrogen-dependent activation domains (AF-1 and AF-2, respectively), ER α regulates transcription by recruiting coactivator proteins and interacting with general transcriptional machinery (2). Phosphorylation at multiple sites provides an important mechanism to regulate ER α activity (3-5). Ser104, 106, 118, and 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. Ser118 may be the substrate of the transcription regulatory kinase CDK7 (5). Ser167 may be phosphorylated by p90RSK and Akt (4,6). According to the research literature, phosphorylation at Ser167 may confer tamoxifen resistance in breast cancer patients (4).

Background References

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2. Glass, C.K. and Rosenfeld, M.G. (2000) *Genes Dev* 14, 121-41.
3. Chen, D. et al. (1999) *Mol Cell Biol* 19, 1002-15.
4. Campbell, R.A. et al. (2001) *J Biol Chem* 276, 9817-24.
5. Chen, D. et al. (2000) *Mol Cell* 6, 127-37.
6. Joel, P.B. et al. (1998) *Mol Cell Biol* 18, 1978-84.

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