



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C
#2517

Phospho-Estrogen Receptor α (Ser104/106) Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 66	Source/Isotype: Rabbit	UniProt ID: #P03372	Entrez-Gene Id: 2099
---------------------------	-------------------------	-----------------------------------	------------------------	----------------------------------	-------------------------------	--------------------------------

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

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

Specificity/Sensitivity

Phospho-Estrogen Receptor alpha (Ser104/106) Antibody detects endogenous levels of ER alpha only when phosphorylated at Ser104/106. It does not cross-react with the phosphorylated ER isoform beta.

Species predicted to react based on 100% sequence homology

Mouse

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding serine 104/106 of human ER alpha. Antibodies are purified by protein A and peptide affinity chromatography.

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

1. Mangelsdorf, D.J. et al. (1995) *Cell* 83, 835-9.
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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no

force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.