

# Phospho-SRC-3 (Thr24) Antibody

- Small 100  $\mu$ l  
(10 western blots)
- Petite 40  $\mu$ l  
(4 western blots)

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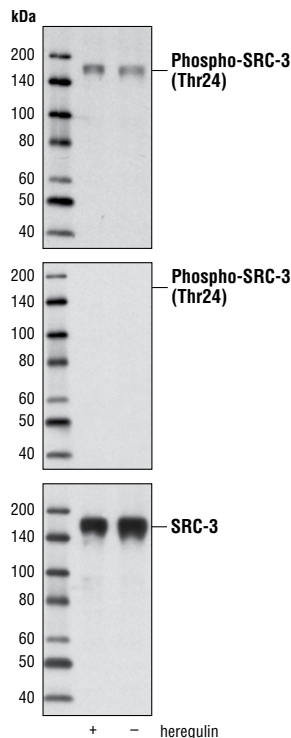
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IF-IC Endogenous	H	160 kDa	Rabbit**

**Background:** There are three members of the steroid receptor co-activator (SRC) family of proteins: SRC-1 (NCoA-1), SRC-2 (TIF2/GRIP1/NCoA-2) and SRC-3 (ACTR/pCIP/RAC3/TRAM-1/AIB1). The SRC family members all share significant structural homology and function in a similar fashion to stimulate transcription mediated by nuclear hormone receptors and other transcriptional activators such as STAT3, NF- $\kappa$ B, E2F1 and p53 (1-4). Two SRC proteins, SRC-1 and SRC-3, function as histone acetyltransferases (5,6). In addition, all three family members can recruit other histone acetyltransferases (CBP/p300, PCAF) and histone methyltransferases (PRMT1, CARM1) to target promoters and cooperate to enhance expression of many genes (5-8). The SRC proteins play important roles in multiple physiological processes including cell proliferation, cell survival, somatic cell growth, mammary gland development, female reproductive function and vasoprotection (9). SRC-1 and SRC-3 are conduits for kinase-mediated growth factor signaling to the estrogen receptor and other transcriptional activators. Seven SRC-1 phosphorylation sites and six SRC-3 phosphorylation sites have been identified, which are induced by steroids, cytokines and growth factors and involve multiple kinase signaling pathways (9-11). All three SRC family members are associated with increased activity of nuclear receptors in breast, prostate and ovarian carcinomas. In addition, SRC-3 is frequently amplified or over-expressed in a number of cancers (12), and SRC-1/PAX3 and SRC-2/MYST3 translocations are found associated with rhabdomyosarcoma and acute myeloid leukemia, respectively (13,14).

Phosphorylation of Thr24 of SRC-3 proteins can be induced by stimulation with EGF. Phosphorylated SRC-3 translocates from the cytoplasm to the nucleus where it interacts with other transcription factors and steroid hormone receptors and regulates gene expression (15).

**Specificity/Sensitivity:** Phospho-SRC-3 (Thr24) Antibody detects endogenous levels of SRC-3 protein only when phosphorylated on Thr24. This antibody does not cross-react with other family members.



Western blot analysis of cell extracts from MCF-7 cells, untreated or stimulated with heregulin, using Phospho-SRC-3 (Thr24) Antibody (upper and middle) or SRC-3 (5E11) Rabbit mAb #2126 (lower). The middle blot was treated with calf intestinal phosphatase (CIP) before antibody probing.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to sequence surrounding Thr24 of the human SRC-3 protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Entrez-Gene ID** #Q9Y6Q9  
**Swiss-Prot Acc.** #8202

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

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western Blotting	1:1000
Immunofluorescence (IF-IC)	1:200

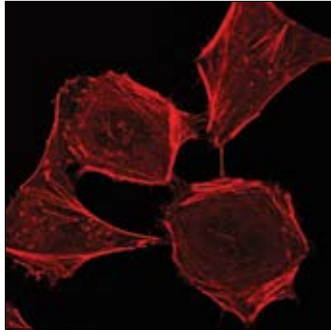
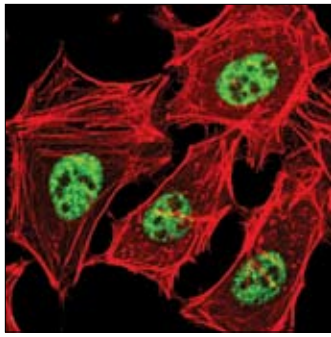
For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**Background References:**

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



*Confocal immunofluorescent analysis of HeLa cells, either untreated (upper) or  $\lambda$ -phosphatase treated (lower), using Phospho-SRC-3 (Thr24) Antibody (green). Actin filaments have been labeled with DY-554 phalloidin (red).*