

# Phospho-SRC-3 (Thr24) Antibody



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<b>Applications:</b> W, IF-IC	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 160	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #Q9Y6Q9	<b>Entrez-Gene Id:</b> 8202
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## Product Usage Information

### Application

Western Blotting  
Immunofluorescence (Immunocytochemistry)

### Dilution

1:1000  
1:200

## Storage

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

## 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.

## 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.

## 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). All SRC family members share significant structural homology and function to stimulate transcription mediated by nuclear hormone receptors and other transcriptional activators such as Stat3, NF-κB, 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). Research has shown that all three SRC family members are associated with increased activity of nuclear receptors in breast, prostate, and ovarian carcinomas. According to the literature, SRC-3 is frequently amplified or overexpressed 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).

## Background References

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## 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 **IF-IC:** Immunofluorescence (Immunocytochemistry)

**Cross-Reactivity Key**

**H:** Human

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