

#2979 Store at -20°C

Phospho-SRC-3 (Thr24) Antibody


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IF-IC	H	Endogenous	160	Rabbit	#Q9Y6Q9	8202

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

- Giraud, S. et al. (2002) *J. Biol. Chem.* 277, 8004-8011.
- Na, S.Y. et al. (1998) *J. Biol. Chem.* 273, 10831-10834.
- Louie, M.C. et al. (2004) *Mol. Cell Biol.* 24, 5157-5171.
- Lee, S.K. et al. (1999) *Mol. Endocrinol.* 13, 1924-1933.
- Spencer, T.E. et al. (1997) *Nature* 389, 194-198.
- Chen, H. et al. (1997) *Cell* 90, 569-580.
- Koh, S.S. et al. (2001) *J. Biol. Chem.* 276, 1089-1098.
- Chen, D. et al. (1999) *Science* 284, 2174-2177.
- Wu, R.C. et al. (2004) *Mol. Cell* 15, 937-949.
- Rowan, B.G. et al. (2000) *J. Biol. Chem.* 275, 4475-4483.
- Zhou, H.J. et al. (2005) *Cancer Res.* 65, 7976-7983.
- Torres-Arzayus, M.I. et al. (2004) *Cancer Cell* 6, 263-274.
- Wachtel, M. et al. (2004) *Cancer Res.* 64, 5539-5545.
- Deguchi, K. et al. (2003) *Cancer Cell* 3, 259-271.
- Amazit, L. et al. (2007) *Mol. Cell Biol.* 27, 6913-6932.

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

WB: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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