

SRC-1 (128E7) Rabbit mAb

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Applications: W, IP, IHC-P, ChIP	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 180	Source/Isotype: Rabbit IgG	UniProt ID: #Q15788	Entrez-Gene Id: 8648
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Product Usage Information

For optimal ChIP results, use 5 µl of antibody and 10 µg of chromatin (approximately 4 x 10⁶ cells) per IP. This antibody has been validated using SimpleChIP[®] Enzymatic Chromatin IP Kits.

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunohistochemistry (Paraffin)	1:200
Chromatin IP	1:100

Storage

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

For a carrier free (BSA and azide free) version of this product see product #53397.

Specificity/Sensitivity

SRC-1 (128E7) Rabbit mAb detects endogenous levels of total SRC-1 protein (all three isoforms). The antibody does not cross-react with other SRC proteins, including SRC-2 and SRC-3.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the sequence of human SRC-1 protein.

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).

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 IP: Immunoprecipitation IHC-P: Immunohistochemistry (Paraffin) ChIP: Chromatin IP
Cross-Reactivity Key	H: Human M: Mouse R: Rat Mk: Monkey
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