

## c-Yes (C-4): sc-48396



The Power to Question

## BACKGROUND

Src is the human homolog of the v-Src gene of the Rous sarcoma virus, also known as avian sarcoma virus or ASV. Src is the first proto-oncogenic non-receptor tyrosine kinase characterized in human. By virtue of common structural motifs, the Src family is composed of nine members in vertebrates, including Src, Yes, Fgr, Frk, Fyn, Lyn, Hck, Lck and Blk. Src-family kinases transduce signals that control a variety of cellular processes, including proliferation, differentiation, motility and adhesion. Src-family kinases contain an amino terminal cell membrane anchor followed by an SH3 domain and an SH2 domain involved in modular association and activation, respectively. Human c-Yes is the cellular homolog of the Yamaguchi sarcoma virus onco-gene, Yes1. The human c-Yes gene maps to chromosome 18p11.32 and encodes a 543 amino acid protein. c-Src and c-Yes kinases are more than 80% homologous outside of unique amino-termini. Their respective SH3 and SH2 domains are capable of directing specificity in substrate binding.

## REFERENCES

1. Sakaguchi, A.Y., et al. 1982. Organization of human proto-oncogenes. *Am. J. Hum. Genet.* 34: 175.
2. Semba, K., et al. 1985. Location of the c-Yes gene on the human chromosome and its expression in various tissues. *Science* 227: 1038-1040.
3. Williams, J.C., et al. 1998. Insights into Src kinase functions: structural comparisons. *Trends Biochem. Sci.* 23: 179-184.
4. Tatosyan, A.G., et al. 2000. Kinases of the Src family: structure and functions. *Biochemistry* 65: 49-58.
5. Summy, J.M., et al. 2000. The SH3 and SH2 domains are capable of directing specificity in protein interactions between the non-receptor tyrosine kinases cSrc and cYes. *Oncogene* 19: 155-160.
6. Bjorge, J.D., et al. 2000. Selected glimpses into the activation and function of Src kinase. *Oncogene* 19: 5620-5635.

## CHROMOSOMAL LOCATION

Genetic locus: YES1 (human) mapping to 18p11.32; Yes1 (mouse) mapping to 5 B1.

## SOURCE

c-Yes (C-4) is a mouse monoclonal antibody raised against amino acids 1-95 mapping at the N-terminus of c-Yes of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

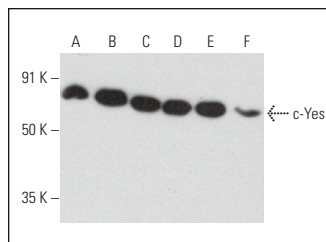
c-Yes (C-4) is recommended for detection of c-Yes of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for c-Yes siRNA (h): sc-29860, c-Yes siRNA (m): sc-29861, c-Yes shRNA Plasmid (h): sc-29860-SH, c-Yes shRNA Plasmid (m): sc-29861-SH, c-Yes shRNA (h) Lentiviral Particles: sc-29860-V and c-Yes shRNA (m) Lentiviral Particles: sc-29861-V.

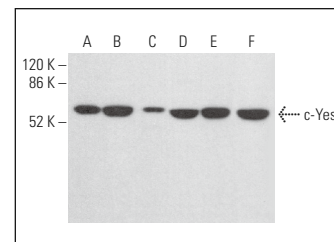
Molecular Weight of c-Yes: 62 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, Sol8 cell lysate: sc-2249 or NIH/3T3 whole cell lysate: sc-2210.

## DATA



c-Yes (C-4): sc-48396. Western blot analysis of c-Yes expression in T98G (A), A-431 (B), CTLL-2 (C), Sol8 (D), KNRK (E) and L8 (F) whole cell lysates.



c-Yes (C-4): sc-48396. Western blot analysis of c-Yes expression in Jurkat (A), CCRF-CEM (B), MOLT-4 (C), NIH/3T3 (D), EOC 20 (E) and A-10 (F) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Yu, H.G., et al. 2011. p190RhoGEF (Rggef) promotes colon carcinoma tumor progression via interaction with focal adhesion kinase. *Cancer Res.* 71: 360-370.
2. Holzer, R.G., et al. 2011. Saturated fatty acids induce c-Src clustering within membrane subdomains, leading to JNK activation. *Cell* 147: 173-184.
3. Szalmás, A., et al. 2013. Activation of Src, Fyn and Yes non-receptor tyrosine kinases in keratinocytes expressing human papillomavirus (HPV) type 16 E7 oncoprotein. *Virology* 10: 79.
4. Gujral, T.S., et al. 2014. A noncanonical Frizzled2 pathway regulates epithelial-mesenchymal transition and metastasis. *Cell* 159: 844-856.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.