

c-Yes (C-10): sc-46674



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 oncogene, 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.

CHROMOSOMAL LOCATION

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

SOURCE

c-Yes (C-10) is a mouse monoclonal antibody raised against amino acids 1-95 of c-Yes of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

c-Yes (C-10) is available conjugated to agarose (sc-46674 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-46674 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-46674 PE), fluorescein (sc-46674 FITC), Alexa Fluor® 488 (sc-46674 AF488), Alexa Fluor® 546 (sc-46674 AF546), Alexa Fluor® 594 (sc-46674 AF594) or Alexa Fluor® 647 (sc-46674 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-46674 AF680) or Alexa Fluor® 790 (sc-46674 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

APPLICATIONS

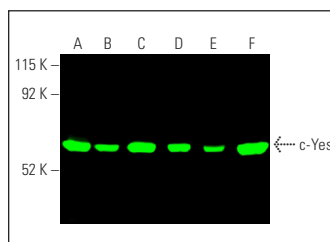
c-Yes (C-10) is recommended for detection of c-Yes p61 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:10000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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.

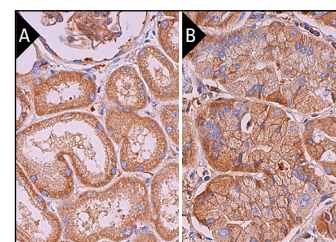
Molecular Weight of c-Yes: 62 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Jurkat whole cell lysate: sc-2204 or SW480 cell lysate: sc-2219.

DATA



c-Yes (C-10): sc-46674. Near-Infrared western blot analysis of c-Yes expression in K-562 (A), Jurkat (B), A-431 (C), HeLa (D), SW480 (E) and NIH/3T3 (F) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG Fc BP-CFL 680: sc-533657.



c-Yes (C-10): sc-46674. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and cells in tubules (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Konecny, G.E., et al. 2009. Activity of the multikinase inhibitor dasatinib against ovarian cancer cells. *Br. J. Cancer* 101: 1699-1708.
2. Matsushima, S., et al. 2016. Tyrosine kinase FYN negatively regulates Nox4 in cardiac remodeling. *J. Clin. Invest.* 126: 3403-3416.
3. Galanis, E., et al. 2019. A phase 1 and randomized, placebo-controlled phase 2 trial of bevacizumab plus dasatinib in patients with recurrent glioblastoma: alliance/North central cancer treatment group N0872. *Cancer* 125: 3790-3800.
4. Broussard, J.A., et al. 2021. Desmosomes polarize and integrate chemical and mechanical signaling to govern epidermal tissue form and function. *Curr. Biol.* 31: 3275-3291.e5.
5. Barros, P., et al. 2023. YES1 kinase mediates the membrane removal of rescued F508del-CFTR in airway cells by promoting MAPK pathway activation via SHC1. *Biomolecules* 13: 949.

RESEARCH USE

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