SANTA CRUZ BIOTECHNOLOGY, INC.

Blk (9D10B7H6): sc-65939

SANTA CRUZ BIOTECHNOLOGY

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 was the first proto-oncogenic non-receptor tyrosine kinase characterized in human. Based on 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 are involved in the control of 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. Src family kinases are normally maintained in an inactive state and can be activated transiently during cellular events such as mitosis. Different subcellular localizations of Src-family kinases may be important for the regulation of specific cellular processes such as mitogenesis, cytoskeletal organization and membrane trafficking. The human B lymphocyte kinase gene maps to chromosome 8p23.1 and encodes a 505 amino acid protein, known as Blk. Blk is expressed exclusively by B lymphocytes.

REFERENCES

1. Sakaguchi, A.Y., et al. 1982. Organization of human proto-oncogenes. Am. J. Hum. Genet. 34: 175.
2. Tronick, S.R., et al. 1985. Isolation and chromosomal localization of the human fgr protooncogene, a distinct member of the tyrosine kinase gene family. Proc. Natl. Acad. Sci. USA 82: 6595-6599.
3. Drebin, J.A., et al. 1995. Molecular cloning and chromosomal localization of the human homologue of a B lymphocyte specific protein tyrosine kinase (Blk). Oncogene 10: 477-486.
4. Williams, J.C., et al. 1998. Insights into Src kinase functions: structural comparisons. Trends Biochem. Sci. 23: 179-184.
5. Tatosyan, A.G., et al. 2000. Kinases of the Src family: structure and functions. Biochemistry 65: 49-58.

CHROMOSOMAL LOCATION

Genetic locus: BLK (human) mapping to 8p23.1.

SOURCE

Blk (9D10B7H6) is a mouse monoclonal antibody raised against recombinant protein Blk of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml 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

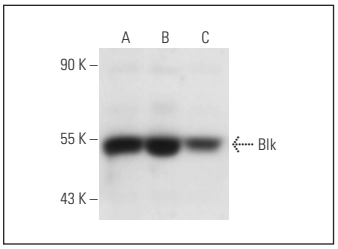
Blk (9D10B7H6) is recommended for detection of Blk of human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:50-1:2500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:50-1:2500).

Suitable for use as control antibody for Blk siRNA (h): sc-39227, Blk shRNA Plasmid (h): sc-39227-SH and Blk shRNA (h) Lentiviral Particles: sc-39227-V.

Molecular Weight of Blk: 58 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, NAMALWA cell lysate: sc-2234 or Ramos cell lysate: sc-2216.

DATA



Blk (9D10B7H6): sc-65939. Western blot analysis of Blk expression in NAMALWA (**A**), Ramos (**B**) and Raji (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Simpfendorfer, K.R., et al. 2012. The autoimmunity-associated BLK haplotype exhibits *cis*-regulatory effects on mRNA and protein expression that are prominently observed in B cells early in development. Hum. Mol. Genet. 21: 3918-3925.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.