SANTA CRUZ BIOTECHNOLOGY, INC.

BAALC (A-14): sc-70020

BACKGROUND

BAALC (brain and acute leukemia, cytoplasmic) is a 180 amino acid protein that localizes to both the membrane and the cytoplasm and exists as multiple alternatively spliced isoforms. Expressed by hematopoetic and neural cells, BAALC interacts with CaMKIIα and is thought to play a role in synaptic function at postsynaptic lipid rafts. BAALC may be overexpressed in acute myeloid leukemia (AML), suggesting a role in tumorigenesis. The gene encoding BAALC maps to human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that maps to chromosome 8.

REFERENCES

1. Tanner, S.M., et al. 2001. BAALC, the human member of a novel mammalian neuroectoderm gene lineage, is implicated in hematopoiesis and acute leukemia. Proc. Natl. Acad. Sci. USA 98: 13901-13906.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606602. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Satoskar, A.A., et al. 2005. BAALC, a marker of mesoderm and muscle. Gene Expr. Patterns 5: 463-473.
4. Baldus, C.D., et al. 2007. Low ERG and BAALC expression identifies a new subgroup of adult acute T-lymphoblastic leukemia with a highly favorable outcome. J. Clin. Oncol. 25: 3739-3745.
5. Langer, C., et al. 2008. High BAALC expression associates with other molecular prognostic markers, poor outcome, and a distinct gene-expression signature in cytogenetically normal patients younger than 60 years with acute myeloid leukemia: a cancer and leukemia group B (CALGB) study. Blood 111: 5371-5379.
6. Qi, X., et al. 2008. Up-regulation of BAALC gene may be an important alteration in AML-M2 patients with t(8;21) translocation. J. Cell. Mol. Med. 12: 2301-2304.

CHROMOSOMAL LOCATION

Genetic locus: BAALC (human) mapping to 8q22.3; Baalc (mouse) mapping to 15 B3.1.

SOURCE

BAALC (A-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BAALC of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-70020 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BAALC (A-14) is recommended for detection of BAALC of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

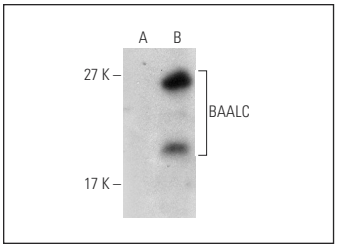
BAALC (A-14) is also recommended for detection of BAALC in additional species, including bovine and porcine.

Suitable for use as control antibody for BAALC siRNA (h): sc-72595, BAALC siRNA (m): sc-72596, BAALC shRNA Plasmid (h): sc-72595-SH, BAALC shRNA Plasmid (m): sc-72596-SH, BAALC shRNA (h) Lentiviral Particles: sc-72595-V and BAALC shRNA (m) Lentiviral Particles: sc-72596-V.

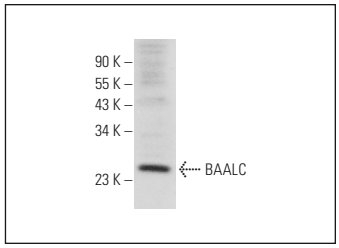
Molecular Weight of BAALC: 22 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136 or BAALC (h): 293T Lysate: sc-170308.

DATA



BAALC (A-14): sc-70020. Western blot analysis of BAALC expression in non-transfected: sc-117752 (**A**) and human BAALC transfected: sc-170308 (**B**) 293T whole cell lysates.



BAALC (A-14): sc-70020. Western blot analysis of BAALC expression in HEK293 whole cell lysate.

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.

PROTOCOLS

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