

BAALC (C-2): sc-365516

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 hematopoietic and neural cells, BAALC interacts with CaMKII α 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 (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 17-43 near the N-terminus of BAALC of human origin.

PRODUCT

Each vial contains 200 μ g IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365516 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

BAALC (C-2) 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 μ g per 100-500 μ g 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 (C-2) is also recommended for detection of BAALC in additional species, including canine.

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.

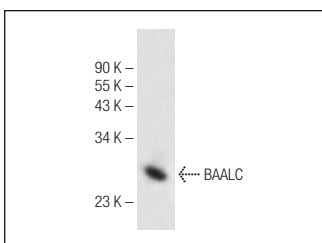
Molecular Weight of BAALC: 22 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225.

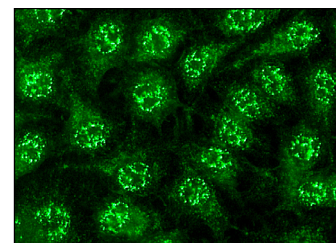
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



BAALC (C-2): sc-365516. Western blot analysis of BAALC expression in CCRF-CEM whole cell lysate.



BAALC (C-2): sc-365516. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and membrane localization.

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 for detailed protocols and support products.