SANTA CRUZ BIOTECHNOLOGY, INC.

AF9 (L-15): sc-32371

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The MLL (ALL-1, HRX) gene influences myelomonocytic differentiation, and different chromosomal translocations can result in a range of MLL fusion proteins that mediate leukemia. Frequent translocation partners of MLL include ELL, ENL, AF4, AF6 and AF9. ELL (elongation factor RNA polymerase II, Men) encodes an RNA polymerase II elongation factor that is implicated in t(11;19)(q23;p13.1) translocation in myeloid leukemias. AF9 (MLLT3, YEATS3) fusion with the MLL gene results in a t[(9;11)(p22;q23)] translocation, which is associated with *de novo* acute myelogenous leukemia (AML). ENL (MLLT1, LTG19, YEATS1, eleven-nineteen leukemia protein) is capable of activating transcription from synthetic reporter genes in both lymphoid and myeloid cells. The t[(11;19)(q23;p13)] translocation results in the MLL-ENL fusion protein, which is commonly found in infant acute leukemias of both the myeloid and lymphoid lineage.

REFERENCES

1. Ennas, M.G., et al. 1997. The human ALL-1/MLL/HRX antigen is predominantly localized in the nucleus of resting and proliferating peripheral blood mononuclear cells. Cancer Res. 57: 2035-2041.
2. Shilatifard, A. 1998. Factors regulating the transcriptional elongation activity of RNA polymerase II. FASEB J. 12: 1437-1446.
3. Shinobu, N., et al. 1999. Physical interaction and functional antagonism between the RNA polymerase II elongation factor ELL and p53. J. Biol. Chem. 274: 17003-17010.
4. Strissel, P.L., et al. 2000. DNA structural properties of AF9 are similar to MLL and could act as recombination hot spots resulting in MLL/AF9 translocations and leukemogenesis. Hum. Mol. Genet. 9: 1671-1679.
5. Horton, S.J., et al. 2005. Continuous MLL-ENL expression is necessary to establish a "Hox Code" and maintain immortalization of hematopoietic progenitor cells. Cancer 65: 9245-9252.
6. Murmann, A.E., et al. 2005. Local gene density predicts the spatial position of genetic loci in the interphase nucleus. Exp. Cell Res. 311: 14-26.
7. Pramparo, T., et al. 2005. Loss-of-function mutation of the AF9/MLLT3 gene in a girl with neuromotor development delay, cerebellar ataxia and epilepsy. Hum. Genet. 118: 1-6.

CHROMOSOMAL LOCATION

Genetic locus: MLLT3 (human) mapping to 9p21.3; Mllt3 (mouse) mapping to 4 C4.

SOURCE

AF9 (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AF9 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-32371 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AF9 (L-15) is recommended for detection of AF9 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).

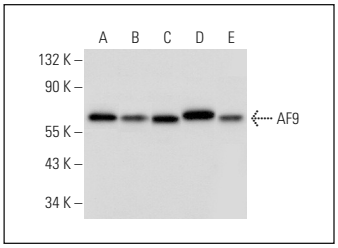
AF9 (L-15) is also recommended for detection of AF9 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for AF9 siRNA (h): sc-44793, AF9 siRNA (m): sc-44794, AF9 shRNA Plasmid (h): sc-44793-SH, AF9 shRNA Plasmid (m): sc-44794-SH, AF9 shRNA (h) Lentiviral Particles: sc-44793-V and AF9 shRNA (m) Lentiviral Particles: sc-44794-V.

Molecular Weight of AF9: 63 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

DATA



AF9 (L-15): sc-32371. Western blot analysis of AF9 expression in HL-60 (**A**), HeLa (**B**), K-562 (**C**) and NIH/3T3 (**D**) whole cell lysates and mouse testis tissue extract (**E**).

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.