

ZFYVE19 (J-24): sc-101051

BACKGROUND

Zinc finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZFYVE19 (zinc finger, FYVE domain containing 19), also known as MPFYVE (MLL partner containing FYVE domain), is a 471 amino acid protein that contains one FYVE-type zinc finger. Expressed in heart, brain, kidney, skeletal muscle and liver, ZFYVE19 may participate in transcriptional regulation events within the cell. Defects in the gene encoding ZFYVE19 are associated with acute myeloblastic leukemia (AML), a rapidly progressing cancer of the myeloid line of white blood cells that is characterized by fever, anemia, bone pain, shortness of breath and frequent infections. Three isoforms of ZFYVE19 exist due to alternative splicing events.

REFERENCES

- Hayette, S., Tigaud, I., Vanier, A., Martel, S., Corbo, L., Charrin, C., Beillard, E., Deleage, G., Magaud, J.P. and Rimokh, R. 2000. AF15q14, a novel partner gene fused to the MLL gene in an acute myeloid leukaemia with a t(11;15)(q23;q14). *Oncogene* 19: 4446-4450.
- Shibuya, N., Taki, T., Mugishima, H., Chin, M., Tsuchida, M., Sako, M., Kawa, K., Ishii, E., Miura, I., Yanagisawa, M. and Hayashi, Y. 2001. t(10;11)-acute leukemias with MLL-AF10 and MLL-ABI1 chimeric transcripts: specific expression patterns of ABI1 gene in leukemia and solid tumor cell lines. *Genes Chromosomes Cancer* 32: 1-10.
- Ono, R., Taki, T., Taketani, T., Taniwaki, M., Kobayashi, H. and Hayashi, Y. 2002. LCX, leukemia-associated protein with a CXXC domain, is fused to MLL in acute myeloid leukemia with trilineage dysplasia having t(10;11)(q22;q23). *Cancer Res.* 62: 4075-4080.
- Chinwalla, V., Chien, A., Otero, M., Neilly, M.B., Zeleznik-Le, N.J. and Rowley, J.D. 2003. A t(11;15) fuses MLL to two different genes, AF15q14 and a novel gene MPFYVE on chromosome 15. *Oncogene* 22: 1400-1410.
- Kuefer, M.U., Chinwalla, V., Zeleznik-Le, N.J., Behm, F.G., Naeve, C.W., Rakestraw, K.M., Mukatira, S.T., Raimondi, S.C. and Morris, S.W. 2003. Characterization of the MLL partner gene AF15q14 involved in t(11;15)(q23;q14). *Oncogene* 22: 1418-1424.
- Olsen, J.V., Blagoev, B., Gnad, F., Macek, B., Kumar, C., Mortensen, P. and Mann, M. 2006. Global, *in vivo*, and site-specific phosphorylation dynamics in signaling networks. *Cell* 127: 635-648.

CHROMOSOMAL LOCATION

Genetic locus: ZFYVE19 (human) mapping to 15q15.1; Zfyve19 (mouse) mapping to 2 E5.

SOURCE

ZFYVE19 (J-24) is a mouse monoclonal antibody raised against recombinant ZFYVE19 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ZFYVE19 (J-24) is recommended for detection of ZFYVE19 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).

Suitable for use as control antibody for ZFYVE19 siRNA (h): sc-90097, ZFYVE19 siRNA (m): sc-155604, ZFYVE19 shRNA Plasmid (h): sc-90097-SH, ZFYVE19 shRNA Plasmid (m): sc-155604-SH, ZFYVE19 shRNA (h) Lentiviral Particles: sc-90097-V and ZFYVE19 shRNA (m) Lentiviral Particles: sc-155604-V.

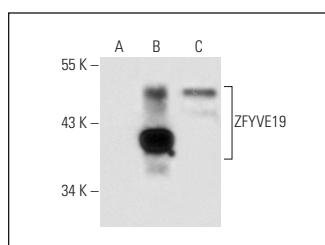
Molecular Weight of ZFYVE19: 48 kDa.

Positive Controls: ZFYVE19 (m): 293T Lysate: sc-127815 or HeLa whole cell lysate: sc-2200.

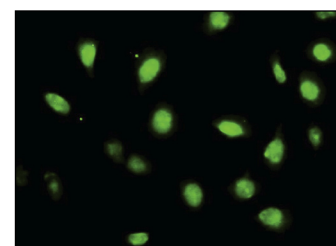
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



ZFYVE19 (J-24): sc-101051. Western blot analysis of ZFYVE19 expression in non-transfected 293T: sc-117752 (A), mouse ZFYVE19 transfected 293T: sc-127815 (B) and HeLa (C) whole cell lysates.



ZFYVE19 (J-24): sc-101051. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear 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.