

AF-4 (H-163): sc-99062

BACKGROUND

Proto-oncogene AF-4 (or FEL) is a product of a chromosomal aberration of the human gene AFF1, which is associated with acute leukemias. The fusion of AF-4 on chromosome band 4q21 with the mixed lineage leukemia (MLL or HRX) gene on 11q23 results in a MLL-AF-4 chimeric transcription factor in which AF-4 contributes transcriptional effector properties and requires cell-specific accessory factors. MLL is involved in several chromosomal translocations associated with acute myeloid and lymphoid leukemia. The MLL-AF-4 fusion protein is expressed in all normal hematopoietic cells. The expression of MLL-AF-4 influences the production of protein cyclin-dependent kinase inhibitor (CDKN1B), suggesting that inhibition of MLL-AF-4 expression may be a powerful and highly specific treatment of chemotherapy-resistant leukemia.

REFERENCES

- Morrissey, J.J., et al. 1998. The FEL (AF-4) protein donates transcriptional activation sequences to HRX-FEL fusion proteins in leukemias containing t(4;11)(q21;q23) chromosomal translocations. *Leuk. Res.* 21: 911-917.
- Yamamoto, S., et al. 1998. High frequency of fusion transcripts of exon 11 and exon 4/5 in AF-4 gene is observed in cord blood, as well as leukemic cells from infant leukemia patients with t(4;11)(q21;q23). *Leukemia* 12: 1398-1403.

CHROMOSOMAL LOCATION

Genetic locus: AFF1 (human) mapping to 4q21.3.

SOURCE

AF-4 (H-163) is a rabbit polyclonal antibody raised against amino acids 114-276 mapping near the N-terminus of AF-4 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.

APPLICATIONS

AF-4 (H-163) is recommended for detection of AF-4 of 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 AF-4 siRNA (h): sc-60131, AF-4 shRNA Plasmid (h): sc-60131-SH and AF-4 shRNA (h) Lentiviral Particles: sc-60131-V.

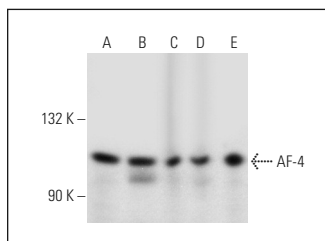
Molecular Weight of AF-4: 131 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, HeLa whole cell lysate: sc-2200, or Ramos cell lysate: sc-2216.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



AF-4 (H-163): sc-99062. Western blot analysis of AF-4 expression in SK-N-SH (A), HeLa (B), K-562 (C), Jurkat (D) and Ramos (E) whole cell lysates.

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.