SANTA CRUZ BIOTECHNOLOGY, INC.

AF-10 (HAF10 9A5/2): sc-53156

BACKGROUND

The nuclear protein AF-10 is one of several conserved transcription factors involved in the t(10;11) translocation in acute myeloid leukemia. The open reading frame of human AF-10 contains 1,027 amino acids, which are 90% identical to those of the mouse homolog, which contains 1,061 amino acids. AF-10 is primarily expressed in testis and is highly similar to AF-17.

REFERENCES

1. Chaplin, T., et al. 1995. A novel classof zinc finger/leucine zipper genes identified from the molecular cloning of the t(10;11) translocation in acute leukemia. Blood 85: 1435-1441.
2. Silliman, C.C., et al. 1998. Alternative splicing in wild-type AF-10 and CALM cDNAs and in AF-10-CALM and CALM-AF-10 fusion cDNAs produced by the t(10;11)(p13-14;q14-q21) suggests a potential role for truncated AF-10 polypeptides. Leukemia 12: 1404-1410.
3. Roll, P., et al. 2002. Molecular and fluorescence *in situ* hybridization analysis of a 10;11 rearrangement in a case of infant acute monocytic leukemia. Cancer Genet. Cytogenet. 135: 187-191.
4. Nakamura, T., et al. 2002. ALL-1 is a histone methyltransferase that assembles a supercomplex of proteins involved in transcriptional regulation. Mol. Cell 10: 1119-1128.
5. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc. Natl. Acad. Sci. USA 99: 16899-16903.
6. Perrin, L., et al. 2003. The leucine zipper motif of the *Drosophila* AF-10 homologue can inhibit PRE-mediated repression: implications for leukemogenic activity of human MLL-AF-10 fusions. Mol. Cell. Biol. 23: 119-130.

CHROMOSOMAL LOCATION

Genetic locus: MLLT10 (human) mapping to 10p12.31; Mllt10 (mouse) mapping to 2 A3.

SOURCE

AF-10 (HAF10 9A5/2) is a mouse monoclonal antibody raised against amino acids 1055-1069 of AF-10 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AF-10 (HAF10 9A5/2) is available conjugated to agarose (sc-53156 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53156 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53156 PE), fluorescein (sc-53156 FITC), Alexa Fluor® 488 (sc-53156 AF488), Alexa Fluor® 546 (sc-53156 AF546), Alexa Fluor® 594 (sc-53156 AF594) or Alexa Fluor® 647 (sc-53156 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53156 AF680) or Alexa Fluor® 790 (sc-53156 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

AF-10 (HAF10 9A5/2) is recommended for detection of AF-10 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)] and flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for AF-10 siRNA (h): sc-43605, AF-10 siRNA (m): sc-140892, AF-10 shRNA Plasmid (h): sc-43605-SH, AF-10 shRNA Plasmid (m): sc-140892-SH, AF-10 shRNA (h) Lentiviral Particles: sc-43605-V and AF-10 shRNA (m) Lentiviral Particles: sc-140892-V.

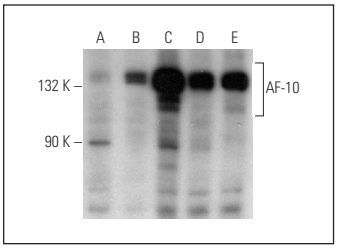
Molecular Weight of AF-10: 140 kDa.

Positive Controls: AF-10 (h): 293T Lysate: sc-176036, NTERA-2 cl.D1 whole cell lysate: sc-364181 or K-562 whole cell lysate: sc-2203.

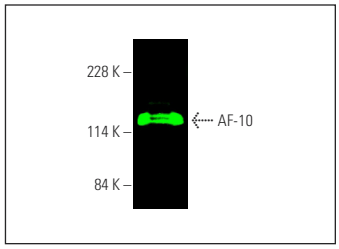
RECOMMENDED SUPPORT REAGENTS

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).

DATA



AF-10 (HAF10 9A5/2): sc-53156. Western blot analysis of AF-10 expression in non-transfected 293T: sc-117752 (**A**), human AF-10 transfected 293T: sc-176036 (**B**), NTERA-2 cl.D1 (**C**), M1 (**D**) and K-562 (**E**) whole cell lysates.



AF-10 (HAF10 9A5/2): sc-53156. Near-infrared western blot analysis of AF-10 expression in NTERA-2 cl.D1 whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

SELECT PRODUCT CITATIONS

1. Gomez-Varela, D. and Berg, D.K. 2013. Lateral mobility of presynaptic α7-containing nicotinic receptors and its relevance for glutamate release. J. Neurosci. 33: 17062-17071.
2. Cao, K., et al. 2020. DOT1L-controlled cell-fate determination and transcription elongation are independent of H3K79 methylation. Proc. Natl. Acad. Sci. USA 117: 27365-27373.

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.