

AFF4 (H-189): sc-135337

BACKGROUND

AFF4 (AF4/FMR2 family, member 4), also known as MCEF or AF5Q31, localizes to the nucleus and is a member of the AF4 family of transcription factors. Ubiquitously expressed with highest expression in placenta, heart, pancreas and skeletal muscle, AFF4 is a 1,163 amino acid component of the positive transcription elongation factor b (P-TEFb) complex that contains Cdk9 (cyclin-dependent kinase 9) and cyclin T1. AFF4 is thought to function as a transcription factor that positively regulates transcription during fetal development, as well as in adult tissue. Defects in the gene encoding AFF4 lead to expression of an MLL-AFF4 (myeloid/lymphoid or mixed-lineage leukemia-AFF4) fusion protein that is found in acute lymphoblastic leukemia (ALL), implicating AFF4 in the pathogenesis of ALL. Three isoforms of AFF4 are expressed due to alternative splicing events.

REFERENCES

1. Taki, T., et al. 1999. AF5q31, a newly identified AF4-related gene, is fused to MLL in infant acute lymphoblastic leukemia with ins(5;11)(q31;q13q23). *Proc. Natl. Acad. Sci. USA* 96: 14535-14540.
2. Estable, M.C., et al. 2002. MCEF, the newest member of the AF4 family of transcription factors involved in leukemia, is a positive transcription elongation factor-b-associated protein. *J. Biomed. Sci.* 9: 234-245.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604417. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Urano, A., et al. 2005. Infertility with defective spermiogenesis in mice lacking AF5q31, the target of chromosomal translocation in human infant leukemia. *Mol. Cell. Biol.* 25: 6834-6845.
5. Niedzielski, M.F., et al. 2007. MCEF is localized to the nucleus by protein sequences encoded within three distinct exons, where it represses HIV-1 Tat-transactivation of LTR-directed transcription. *Int. J. Biol. Sci.* 3: 225-236.

CHROMOSOMAL LOCATION

Genetic locus: AFF4 (human) mapping to 5q31.1; Aff4 (mouse) mapping to 11 B1.3.

SOURCE

AFF4 (H-189) is a rabbit polyclonal antibody raised against amino acids 65-253 mapping near the N-terminus of AFF4 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-135337 X, 200 µg/0.1 ml.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

AFF4 (H-189) is recommended for detection of AFF4 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).

AFF4 (H-189) is also recommended for detection of AFF4 in additional species, including porcine.

Suitable for use as control antibody for AFF4 siRNA (h): sc-91842, AFF4 siRNA (m): sc-140897, AFF4 shRNA Plasmid (h): sc-91842-SH, AFF4 shRNA Plasmid (m): sc-140897-SH, AFF4 shRNA (h) Lentiviral Particles: sc-91842-V and AFF4 shRNA (m) Lentiviral Particles: sc-140897-V.

AFF4 (H-189) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

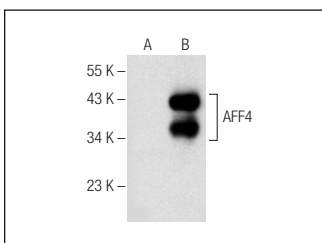
Molecular Weight of AFF4: 127 kDa.

Positive Controls: AFF4 (h): 293T Lysate: sc-114129.

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



AFF4 (H-189): sc-135337. Western blot analysis of AFF4 expression in non-transfected: sc-117752 (A) and human AFF4 transfected: sc-114129 (B) 293T whole cell lysates.

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.