

LAF4 (C-13): sc-107682

BACKGROUND

LAF4 (lymphoid nuclear protein related to AF4), also known as AFF3 (AF4/FMR2 family, member 3), is a 1,226 amino acid nuclear protein that is preferentially expressed in lymphoid tissues and is thought to function as a transcriptional activator. Through its ability to interact with and bind to double-stranded DNA, LAF4 may be involved in lymphoid development and oncogenesis. The gene encoding LAF4 maps to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome. Harlequin ichthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene, while the lipid metabolic disorder sitosterolemia is associated with defects in the ABCG5 and ABCG8 genes. Additionally, an extremely rare recessive genetic disorder, Alstrom syndrome, is caused by mutations in the ALMS1 gene, which maps to chromosome 2.

REFERENCES

1. Ma, C. and Staudt, L.M. 1996. LAF4 encodes a lymphoid nuclear protein with transactivation potential that is homologous to AF-4, the gene fused to MLL in t(4;11) leukemias. *Blood* 87: 734-745.
2. Liao, X., et al. 1996. LAF4 maps to mouse chromosome 1 and human chromosome 2q11.2-q12. *Mamm. Genome* 7: 467-468.
3. von Bergh, A.R., et al. 2002. LAF4, an AF4-related gene, is fused to MLL in infant acute lymphoblastic leukemia. *Genes Chromosomes Cancer* 35: 92-96.
4. Bruch, J., et al. 2003. Occurrence of an MLL/LAF4 fusion gene caused by the insertion ins(11;2)(q23;q11.2q11.2) in an infant with acute lymphoblastic leukemia. *Genes Chromosomes Cancer* 37: 106-109.
5. Hiwatari, M., et al. 2003. Fusion of an AF4-related gene, LAF4, to MLL in childhood acute lymphoblastic leukemia with t(2;11)(q11;q23). *Oncogene* 22: 2851-2855.
6. To, M.D., et al. 2005. LAF4 is aberrantly expressed in human breast cancer. *Int. J. Cancer* 115: 568-574.

CHROMOSOMAL LOCATION

Genetic locus: AFF3 (human) mapping to 2q11.2; Aff3 (mouse) mapping to 1 B.

SOURCE

LAF4 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of LAF4 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-107682 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-107682 X, 200 µg/0.1 ml.

APPLICATIONS

LAF4 (C-13) is recommended for detection of LAF4 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).

LAF4 (C-13) is also recommended for detection of LAF4 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for LAF4 siRNA (h): sc-94401, LAF4 siRNA (m): sc-146636, LAF4 shRNA Plasmid (h): sc-94401-SH, LAF4 shRNA Plasmid (m): sc-146636-SH, LAF4 shRNA (h) Lentiviral Particles: sc-94401-V and LAF4 shRNA (m) Lentiviral Particles: sc-146636-V.

LAF4 (C-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

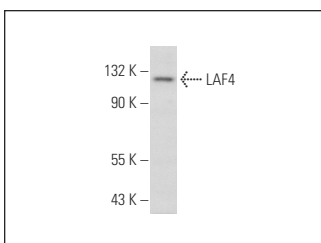
Molecular Weight of LAF4: 135 kDa.

Positive Controls: Ramos cell lysate: sc-2216.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



LAF4 (C-13): sc-107682. Western blot analysis of LAF4 expression in Ramos whole cell lysate.

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.