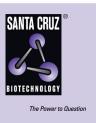
# SANTA CRUZ BIOTECHNOLOGY, INC.

# EAF2 (M-52): sc-292896



# BACKGROUND

The ELL family of RNA polymerase II (Pol II) elongation factors function to activate transcript elongation by inhibiting the transient pausing of Pol II. ELL-associated factor 1 (EAF1) and EAF2 directly interact with ELL family members ELL and ELL2, functioning as transcriptional activators of their elongation activities. More specifically, EAF1 and EAF2 can form a complex with ELL that targets the ternary elongation complex of Pol II, stimulating the rate of elongation. In addition, EAF1 and EAF2 are important for the stability of the NuA4 histone acetyltransferase complex, which transcriptionally activates certain genes by acetylation of Histones H4 and H2A. Both EAF1 and EAF2 are ubiquitously expressed members of the EAF family that colocalize with ELL to the the Cajal bodies and nuclear speckles. EAF1 contains a C-terminal region rich in aspartic acid, glutamic acid and serine residues. EAF2 is an androgen-response gene and can act as a potent apoptosis inducer.

#### REFERENCES

- Luo, R.T., Lavau, C., Du, C., Simone, F., Polak, P.E., Kawamata, S. and Thirman, M.J. 2001. The elongation domain of ELL is dispensable but its ELL-associated factor 1 interaction domain is essential for MLL-ELL-induced leukemogenesis. Mol. Cell. Biol. 21: 5678-5687.
- Simone, F., Polak, P.E., Kaberlein, J.J., Luo, R.T., Levitan, D.A. and Thirman, M.J. 2001. EAF1, a novel ELL-associated factor that is delocalized by expression of the MLL-ELL fusion protein. Blood 98: 201-209.
- Li, M., Wu, X., Zhuang, F., Jiang, S., Jiang, M. and Liu, Y.H. 2003. Expression of murine ELL-associated factor 2 (EAF2) is developmentally regulated. Dev. Dyn. 228: 273-280.
- 4. Polak, P.E., Simone, F., Kaberlein, J.J., Luo, R.T. and Thirman, M.J. 2003. ELL and EAF1 are Cajal body components that are disrupted in MLL-ELL leukemia. Mol. Biol. Cell 14: 1517-1528.
- Simone, F., Luo, R.T., Polak, P.E., Kaberlein, J.J. and Thirman, M.J. 2003. ELL-associated factor 2 (EAF2), a functional homolog of EAF1 with alternative ELL binding properties. Blood 101: 2355-2362.
- Xiao, W., Jiang, F. and Wang, Z. 2005. ELL binding regulates U19/EAF2 intracellular localization, stability, and transactivation. Prostate 66: 1-12.
- Kong, S.E., Banks, C.A., Shilatifard, A., Conaway, J.W. and Conaway, R.C. 2005. ELL-associated factors 1 and 2 are positive regulators of RNA polymerase II elongation factor ELL. Proc. Natl. Acad. Sci. USA 102: 10094-10098.

#### CHROMOSOMAL LOCATION

Genetic locus: EAF2 (human) mapping to 3q13.33; Eaf2 (mouse) mapping to 16 B3.

## SOURCE

EAF2 (M-52) is a rabbit polyclonal antibody raised against amino acids 131-182 mapping within an internal region of EAF2 of mouse origin.

# **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## **APPLICATIONS**

EAF2 (M-52) is recommended for detection of ELL-asociated factor 2 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 EAF2 siRNA (h): sc-62251, EAF2 siRNA (h): sc-62252, EAF2 shRNA Plasmid (h): sc-62251-SH, EAF2 shRNA Plasmid (m): sc-62252-SH, EAF2 shRNA (h) Lentiviral Particles: sc-62251-V and EAF2 shRNA (m) Lentiviral Particles: sc-62252-V.

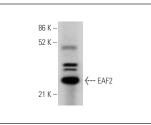
Molecular Weight of EAF2: 29 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.





EAF2 (M-52): sc-292896. Western blot analysis of EAF2 expression in NIH/3T3 whole cell lysate.

## **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.