

# EAF2 (S-20): sc-66374

## 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

1. Luo, R.T., et al. 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.
2. Simone, F., et al. 2001. EAF1, a novel ELL-associated factor that is delocalized by expression of the MLL-ELL fusion protein. *Blood* 98: 201-209.
3. Li, M., et al. 2003. Expression of murine ELL-associated factor 2 (Eaf2) is developmentally regulated. *Dev. Dyn.* 228: 273-280.
4. Polak, P.E., et al. 2003. ELL and EAF1 are Cajal body components that are disrupted in MLL-ELL leukemia. *Mol. Biol. Cell* 14: 1517-1528.
5. Simone, F., et al. 2003. ELL-associated factor 2 (EAF2), a functional homolog of EAF1 with alter-native ELL binding properties. *Blood* 101: 2355-2362.
6. Xiao, W., et al. 2005. ELL binding regulates U19/Eaf2 intracellular localization, stability, and transactivation. *Prostate* 66: 1-12.
7. Kong, S.E., et al. 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.

## SOURCE

EAF2 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EAF2 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-66374 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-66374 X, 200 µg/0.1 ml.

## APPLICATIONS

EAF2 (S-20) is recommended for detection of ELL-associated factor 2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

EAF2 (S-20) is also recommended for detection of ELL-associated factor 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EAF2 siRNA (h): sc-62251, EAF2 shRNA Plasmid (h): sc-62251-SH and EAF2 shRNA (h) Lentiviral Particles: sc-62251-V.

EAF2 (S-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

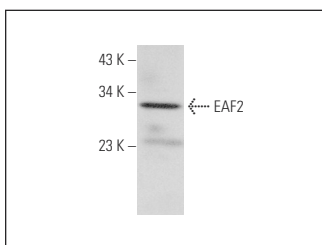
Molecular Weight of EAF2: 29 kDa.

Positive Controls: human liver extract: sc-363766.

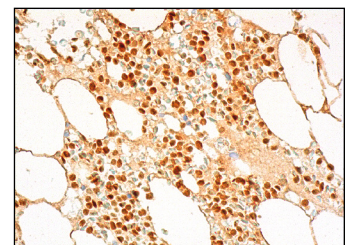
## RECOMMENDED SECONDARY REAGENTS

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



EAF2 (S-20): sc-66374. Western blot analysis of EAF2 expression in human liver tissue extract.



EAF2 (S-20): sc-66374. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bone marrow tissue showing nuclear and cytoplasmic staining of hematopoietic cells.

## 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.