# SANTA CRUZ BIOTECHNOLOGY, INC.

# Elf-4 (M-20): sc-101947



# BACKGROUND

The Ets-1 family of transcription factors has a conserved DNA binding domain through which it plays an important role in cellular proliferation, differentiation, tematopoiesis and angiogenesis. This domain, also known as the Ets domain, binds to DNA sequences containing the consensus sequence 5'-WGGA-3', which is known as the Ets-binding domain. Elf-4, also known as myeloid Elf-1-like factor, ELF4 or MEF, is a 663 amino acid member of the Ets-1 family. Localized to the nucleus, Elf-4 is highly expressed in placenta and myeloid leukemia cells, with lower levels of expression lung, heart, thymus, slpeen, colon, ovary and peripheral blood lymphocytes. Functioning primarily to activate the promoters of hematopoietic growth factor genes, such as GM-CSF, IL-3 and IL-8, Elf-4 has also been shown to activate the Perforin 1 promoter in natural killer (NK) cells, suggesting a possible role in tumorigenesis.

# REFERENCES

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- 2. Kai, H., Hisatsune, A., Chihara, T., Uto, A., Kokusho, A., Miyata, T. and Basbaum, C. 1999. Myeloid Elf-1-like factor up-regulates lysozyme transcription in epithelial cells. J. Biol. Chem. 274: 20098-20102.
- 3. Mao, S., Frank, R.C., Zhang, J., Miyazaki, Y. and Nimer, S.D. 1999. Functional and physical interactions between AML1 proteins and an Ets protein, MEF: implications for the pathogenesis of t(8;21)-positive leukemias. Mol. Cell. Biol. 19: 3635-3644.
- 4. Suico, M.A., Koyanagi, T., Ise, S., Lu, Z., Hisatsune, A., Seki, Y., Shuto, T., Isohama, Y., Miyata, T. and Kai, H. 2002. Functional dissection of the Ets transcription factor MEF. Biochim. Biophys. Acta 1577: 113-120.
- 5. Lacorazza, H.D., Miyazaki, Y., Di Cristofano, A., Deblasio, A., Hedvat, C., Zhang, J., Cordon-Cardo, C., Mao, S., Pandolfi, P.P. and Nimer, S.D. 2002. The Ets protein MEF plays a critical role in perforin gene expression and the development of natural killer and NK-T cells. Immunity 17: 437-449.

# CHROMOSOMAL LOCATION

Genetic locus: ELF4 (human) mapping to Xq26.1.

# SOURCE

Elf-4 (M-20) is a purified rabbit polyclonal antibody raised against Elf-4 of human origin.

# PRODUCT

Each vial contains 50  $\mu$ g lgG in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and <0.02% sucrose.

# **STORAGE**

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

### **APPLICATIONS**

Elf-4 (M-20) is recommended for detection of Elf-4 of 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Elf-4 siRNA (h): sc-91302, Elf-4 shRNA Plasmid (h): sc-91302-SH and Elf-4 shRNA (h) Lentiviral Particles: sc-91302-V.

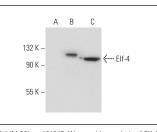
Molecular Weight of Elf-4: 71 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa nuclear extract: sc-2120 or Elf-4 (h2): 293T Lysate: sc-176225.

# **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<sup>™</sup> compatible goat antirabbit 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).

#### DATA



Elf-4 (M-20): sc-101947. Western blot analysis of Elf-4 expression in non-transfected: sc-117752 (A) and human Elf-4 transfected: sc-176225 (B) 293T whole cell lysates and HeLa nuclear extract (C)

### **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.

MONOS Satisfation Guaranteed

Try Elf-4 (E-11): sc-515363 or Elf-4 (F-11): sc-390689, our highly recommended monoclonal alternatives to Elf-4 (M-20).