SANTA CRUZ BIOTECHNOLOGY, INC.

Elf-4 (G-14): sc-132290



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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- Mao, S., et al. 1999. Func-tional 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.
- Suico, M.A., et al. 2002. Functional dissection of the ETS transcription factor MEF. Biochim. Biophys. Acta 1577: 113-120.
- Lacorazza, H.D., et al. 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.
- Hedvat, C.V., et al. 2004. Myeloid Elf-1-like factor is a potent activator of interleukin-8 expression in hematopoietic cells. J. Biol. Chem. 279: 6395-6400.

CHROMOSOMAL LOCATION

Genetic locus: ELF4 (human) mapping to Xq26.1; Elf4 (mouse) mapping to X A4.

SOURCE

Elf-4 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Elf-4 of human origin.

PRODUCT

Each vial contains 200 μ g lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-132290 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-132290 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Elf-4 (G-14) is recommended for detection of Elf-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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); non cross-reactive with Elf-1 or Elf-5.

Elf-4 (G-14) is also recommended for detection of Elf-4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Elf-4 siRNA (h): sc-91302, Elf-4 siRNA (m): sc-144630, Elf-4 shRNA Plasmid (h): sc-91302-SH, Elf-4 shRNA Plasmid (m): sc-144630-SH, Elf-4 shRNA (h) Lentiviral Particles: sc-91302-V and Elf-4 shRNA (m) Lentiviral Particles: sc-144630-V.

Elf-4 (G-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Elf-4: 71 kDa.

Positive Controls: MEG-01 nuclear extract: sc-2150, HL-60 nuclear extract: sc-2147 or Jurkat nuclear extract: sc-2132.

DATA



Elf-4 (G-14): sc-132290. Western blot analysis of Elf-4 expression in Jurkat (A), HL-60 (B), HEL 92.1.7 (C) and MEG-01 (D) nuclear extracts.

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.

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 (G-14).