# SANTA CRUZ BIOTECHNOLOGY, INC.

# Ets-2 (E-5): sc-365666



#### BACKGROUND

Ets-1 is the prototype member of a family of genes identified on the basis of homology to the v-Ets oncogene isolated from the E26 erythroblastosis virus. This family of genes currently includes Ets-1, Ets-2, Erg-1–3, Elk-1, Elf-1, Elf-5, NERF, PU.1, PEA3, ERM, FEV, ER8I, Fli-1, TEL, Spi-B, ESE-1, ESE-3A, Net, ABT1 and ERF. Members of the Ets gene family exhibit varied patterns of tissue expression and share a highly conserved carboxy-terminal domain containing a sequence related to the SV40 large T antigen nuclear localization signal sequence. This conserved domain is essential for Ets-1 binding to DNA and is likely to be responsible for the DNA binding activity of all members of the Ets gene family. Several of these proteins have been shown to recognize similar motifs in DNA that share a centrally located 5'-GGAA-3' element. Evidence indicates that the DNA binding activity by Ets-1 is regulated at the level of phosphorylation.

## REFERENCES

- Ghysdael, J., et al. 1986. Identification and preferential expression in thymic and bursal lymphocytes of a c-Ets oncogene-encoded M<sub>r</sub> 54,000 cytoplasmic protein. Proc. Natl. Acad. Sci. USA 83: 1714-1718.
- Rao, V.N., et al. 1987. Erg, a human Ets-related gene on chromosome 21: alternative splicing, polyadenylation, and translation. Science 237: 635-639.

#### **CHROMOSOMAL LOCATION**

Genetic locus: ETS2 (human) mapping to 21q22.2; Ets2 (mouse) mapping to 16 C4.

#### SOURCE

Ets-2 (E-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 441-469 at the C-terminus of Ets-2 of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g lgG<sub>1</sub> kappa light chain 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-365666 X, 200  $\mu$ g/0.1 ml.

Ets-2 (E-5) is available conjugated to agarose (sc-365666 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365666 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365666 PE), fluorescein (sc-365666 FITC), Alexa Fluor<sup>®</sup> 488 (sc-365666 AF488), Alexa Fluor<sup>®</sup> 546 (sc-365666 AF546), Alexa Fluor<sup>®</sup> 594 (sc-365666 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-365666 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-365666 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-365666 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365666 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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#### **STORAGE**

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

#### APPLICATIONS

Ets-2 (E-5) is recommended for detection of Ets-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Ets-2 (E-5) is also recommended for detection of Ets-2 in additional species, including canine and bovine.

Suitable for use as control antibody for Ets-2 siRNA (h): sc-37855, Ets-2 siRNA (m): sc-37856, Ets-2 shRNA Plasmid (h): sc-37855-SH, Ets-2 shRNA Plasmid (m): sc-37856-SH, Ets-2 shRNA (h) Lentiviral Particles: sc-37855-V and Ets-2 shRNA (m) Lentiviral Particles: sc-37856-V.

Ets-2 (E-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Ets-2: 55 kDa.

Positive Controls: Ets-2 (m): 293T Lysate: sc-120131, Jurkat nuclear extract: sc-2132 or K-562 nuclear extract: sc-2130.

#### DATA





Ets-2 (E-5): sc-365666. Western blot analysis of Ets-2 expression in non-transfected: sc-117752 (A) and mouse Ets-2 transfected: sc-120131 (B) 293T whole cell lysates.

Ets-2 (E-5): sc-365666. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

# SELECT PRODUCT CITATIONS

- Chang, H., et al. 2016. Synergistic action of master transcription factors controls epithelial-to-mesenchymal transition. Nucleic Acids Res. 44: 2514-2527.
- Ji, S., et al. 2021. Suppression of CD13 enhances the cytotoxic effect of chemotherapeutic drugs in hepatocellular carcinoma cells. Front. Pharmacol. 12: 660377.
- Ichikawa, M.K., et al. 2022. Ets family proteins regulate the EMT transcription factors Snail and ZEB in cancer cells. FEBS Open Bio 12: 1353-1364.
- Park, H.B., et al. 2023. Suppression of USP7 negatively regulates the stability of ETS proto-oncogene 2 protein. Biomed. Pharmacother. 162: 114700.

#### **RESEARCH USE**

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