SANTA CRUZ BIOTECHNOLOGY, INC.

Erg-1/2/3 (C-17): sc-354

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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, ER81, 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. Erg genes encode for multiple proteins due to alternative splicing and alternative usage of initiation codons.

CHROMOSOMAL LOCATION

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

SOURCE

Erg-1/2/3 (C-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Erg-1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-354 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-354 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Erg-1/2/3 (C-17) is recommended for detection of Erg-1, Erg-2 and Erg-3 of mouse, rat and 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)], 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).

Erg-1/2/3 (C-17) is also recommended for detection of Erg-1, Erg-2 and Erg-3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Erg-1/2/3 siRNA (h): sc-35333, Erg-1/2/3 siRNA (m): sc-35334, Erg-1/2/3 shRNA Plasmid (h): sc-35333-SH, Erg-1/2/3 shRNA Plasmid (m): sc-35334-SH, Erg-1/2/3 shRNA (h) Lentiviral Particles: sc-35333-V and Erg-1/2/3 shRNA (m) Lentiviral Particles: sc-35334-V.

Erg-1/2/3 (C-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

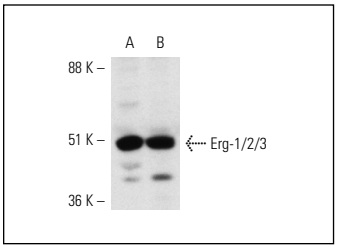
Molecular Weight of Erg-1/2/3: 38/49/55 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, A-431 nuclear extract: sc-2122 or KNRK nuclear extract: sc-2141.

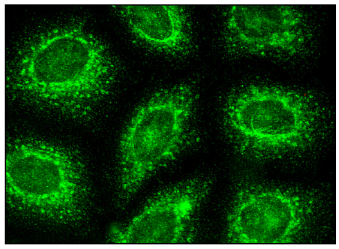
STORAGE

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

DATA



Erg-1/2/3 (C-17): sc-354. Western blot analysis of Erg-1/2/3 expression in Jurkat (**A**) and A-431 (**B**) nuclear extracts.



Erg-1/2/3 (C-17): sc-354. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic MRNP granules localization.

SELECT PRODUCT CITATIONS

1. Akbarali, Y., et al. 1996. Elf-1 interacts with and transactivates the IgH enhancer pi site. J. Biol. Chem. 271: 26007-26012.
2. Oram, S.H., et al. 2010. A previously unrecognized promoter of LMO2 forms part of a transcriptional regulatory circuit mediating LMO2 expression in a subset of T-acute lymphoblastic leukaemia patients. Oncogene 29: 5796-5808.
3. Kunderfranco, P., et al. 2010. ETS transcription factors control transcription of EZH2 and epigenetic silencing of the tumor suppressor gene Nkx3.1 in prostate cancer. PLoS ONE 5: e10547.
4. Flajollet, S., et al. 2011. Abnormal expression of the ERG transcription factor in prostate cancer cells activates osteopontin. Mol. Cancer Res. 9: 914-924.
5. Rahim, S., et al. 2011. YK-4-279 inhibits ERG and ETV1 mediated prostate cancer cell invasion. PLoS ONE 6: e19343.
6. Yin, L., et al. 2011. Role of TMPRSS2-ERG gene fusion in negative regulation of PSMA expression. PLoS ONE 6: e21319.
7. Swanson, T.A., et al. 2011. TMPRSS2/ERG fusion gene expression alters chemo- and radio-responsiveness in cell culture models of androgen independent prostate cancer. Prostate. E-Published.

RESEARCH USE

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