

# Erg-1/2/3 (C-1): sc-376293

## 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.

## REFERENCE

1. 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.
2. Rao, V.N., et al. 1989. Elk, tissue-specific Ets-related genes on chromosomes X and 14 near translocation breakpoints. Science 244: 66-70.
3. Burtis, K.C., et al. 1990. The *Drosophila* 74EF early puff contains E74, a complex ecdysone-inducible gene that encodes two Ets-related proteins. Cell 61: 85-99.

## CHROMOSOMAL LOCATION

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

## SOURCE

Erg-1/2/3 (C-1) is a mouse monoclonal antibody raised against amino acids 26-120 mapping near the N-terminus of Erg-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<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-376293 X, 200 µg/0.1 ml.

Erg-1/2/3 (C-1) is available conjugated to agarose (sc-376293 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376293 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376293 PE), fluorescein (sc-376293 FITC), Alexa Fluor<sup>®</sup> 488 (sc-376293 AF488), Alexa Fluor<sup>®</sup> 546 (sc-376293 AF546), Alexa Fluor<sup>®</sup> 594 (sc-376293 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-376293 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-376293 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-376293 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA

## STORAGE

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

## APPLICATIONS

Erg-1/2/3 (C-1) is recommended for detection of Erg-1, Erg-2 and Erg-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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).

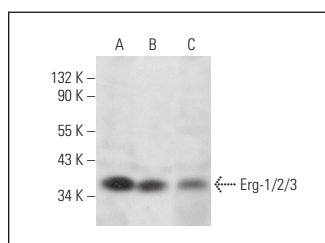
Suitable for use as control antibody for Erg-1/2/3 siRNA (h): sc-35333, Erg-1/2/3 siRNA (m): sc-35334, Erg-1/2/3 shRNA Plasmid (h): sc-35333-SH, Erg-1/2/3 shRNA Plasmid (m): sc-35334-SH, Erg-1/2/3 shRNA (h) Lentiviral Particles: sc-35333-V and Erg-1/2/3 shRNA (m) Lentiviral Particles: sc-35334-V.

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

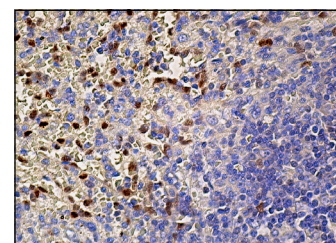
Molecular Weight of Erg-1/2/3: 38/49/55 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180, A-431 nuclear extract: sc-2122 or ECV304 cell lysate: sc-2269.

## DATA



Erg-1/2/3 (C-1): sc-376293. Western blot analysis of Erg-1/2/3 expression in A-431 nuclear extract (A) and HUV-EC-C (B) and ECV304 (C) whole cell lysates.



Erg-1/2/3 (C-1): sc-376293. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing nuclear staining of subset of cells in red pulp.

## SELECT PRODUCT CITATIONS

1. Lunardi, A., et al. 2015. Suppression of CHK1 by Ets family members promotes DNA damage response bypass and tumorigenesis. Cancer Discov. 5: 550-563.
3. D'Amico, G., et al. 2022. ERG activity is regulated by endothelial FAK coupling with TRIM25/USP9x in vascular patterning. Development 149: dev200528.
4. Deng, Z., et al. 2023. Temporal transcriptome features identify early skeletal commitment during human epiphysis development at single-cell resolution. iScience 26: 107200.
4. Shinohara, T., et al. 2024. High shear stress reduces ERG causing endothelial-mesenchymal transition and pulmonary arterial hypertension. bioRxiv. E-published.

## RESEARCH USE

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