

Erg-1/2/3 (D-3): sc-271048

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. Erg (v-Ets erythroblastosis virus E26 oncogene homolog), is a 486 amino acid nuclear and cytoplasmic transcriptional regulator that undergoes alternative splicing to produce multiple isoforms, designated Erg-1, -2 and -3.

REFERENCES

1. Ghysdael, J., et al. 1986. Identification and preferential expression in thymic and bursal lymphocytes of a c-Ets oncogene-encoded M_r 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.

CHROMOSOMAL LOCATION

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

SOURCE

Erg-1/2/3 (D-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 101-129 within an internal region of Erg-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} 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-271048 X, 200 µg/0.1 ml.

Erg-1/2/3 (D-3) is available conjugated to agarose (sc-271048 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271048 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271048 PE), fluorescein (sc-271048 FITC), Alexa Fluor® 488 (sc-271048 AF488), Alexa Fluor® 546 (sc-271048 AF546), Alexa Fluor® 594 (sc-271048 AF594) or Alexa Fluor® 647 (sc-271048 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271048 AF680) or Alexa Fluor® 790 (sc-271048 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271048 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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RESEARCH USE

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

APPLICATIONS

Erg-1/2/3 (D-3) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

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 (D-3) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

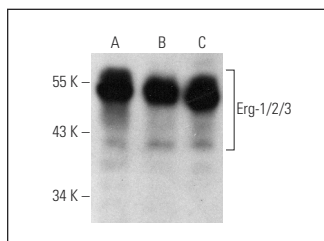
Molecular Weight of Erg-1: 38 kDa.

Molecular Weight of Erg-2: 49 kDa.

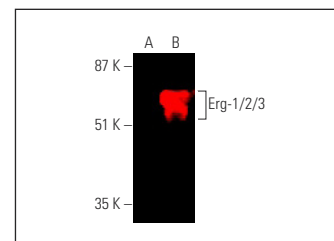
Molecular Weight of Erg-3: 55 kDa.

Positive Controls: Erg-1/2/3 (h): 293T Lysate: sc-115805, CCRF-CEM cell lysate: sc-2225 or CCRF-CEM nuclear extract: sc-2146.

DATA



Erg-1/2/3 (D-3): sc-271048. Western blot analysis of Erg-1/2/3 expression in HUVEC-C (A) and CCRF-CEM (B) whole cell lysates and CCRF-CEM nuclear extract (C).



Erg-1/2/3 (D-3): sc-271048. Near-infrared western blot analysis of Erg-1/2/3 expression in non-transfected: sc-117752 (A) and human Erg-1/2/3 transfected: sc-115805 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.

SELECT PRODUCT CITATIONS

1. Chen, D.W., et al. 2013. Erg and AP-1 as determinants of glucocorticoid response in acute lymphoblastic leukemia. *Oncogene* 32: 3039-3048.
2. Janouskova, H., et al. 2017. Opposing effects of cancer-type-specific SPOP mutants on BET protein degradation and sensitivity to BET inhibitors. *Nat. Med.* 23: 1046-1054.
3. Su, S., et al. 2021. SPOP and OTUD7A control EWS-FLI1 protein stability to govern ewing sarcoma growth. *Adv. Sci.* E-published.

STORAGE

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