SANTA CRUZ BIOTECHNOLOGY, INC.

ERF (E-9): sc-398269

BACKGROUND

ABT1 (activator of basal transcription 1) is a nuclear protein that associates with the TATA-binding protein (TBP) and enhances basal transcription activity of class II promoters. ABT1 associates with TBP in HeLa nuclear extracts *in vitro*. Another protein, designated ERF, is a member of the Ets family of transcription factors. The members of the Ets family are grouped because they share a highly conserved DNA binding domain. These factors are involved in growth factor pathways and regulate both proliferation and differentiation. ERF (Ets-2 repressor factor) is a ubiquitously expressed Ets-domain protein that exhibits strong transcriptional repressor activity, suppresses Ets-induced transformation and is regulated by MAPK phosphorylation. ERF transcription may be regulated by Ets-domain proteins. Additionally, modulation of ERF activity is involved in the transcriptional regulation of genes activated during entry into G_1 phase.

REFERENCES

1. Sgouras, D.N., et al. 1995. ERF: an Ets domain protein with strong transcriptional repressor activity, can suppress Ets-associated tumorigenesis and is regulated by phosphorylation during cell cycle and mitogenic stimulation. EMBO J. 14: 4781-4793.
2. de Castro, C.M., et al. 1997. Genomic structure and chromosomal localization of the novel Ets factor, PE-2 (ERF). Genomics 42: 227-235.
3. Liu, D., et al. 1997. ERF: genomic organization, chromosomal localization and promoter analysis of the human and mouse genes. Oncogene 14: 1445-1451.

CHROMOSOMAL LOCATION

Genetic locus: ERF (human) mapping to 19q13.2; Erf (mouse) mapping to 7 A3.

SOURCE

ERF (E-9) is a mouse monoclonal antibody raised against amino acids 428-495 mapping within an internal region of ERF of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 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-398269 X, 200 µg/0.1 ml.

ERF (E-9) is available conjugated to agarose (sc-398269 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398269 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398269 PE), fluorescein (sc-398269 FITC), Alexa Fluor® 488 (sc-398269 AF488), Alexa Fluor® 546 (sc-398269 AF546), Alexa Fluor® 594 (sc-398269 AF594) or Alexa Fluor® 647 (sc-398269 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398269 AF680) or Alexa Fluor® 790 (sc-398269 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

ERF (E-9) is recommended for detection of ERF 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).

Suitable for use as control antibody for ERF siRNA (h): sc-43754, ERF siRNA (m): sc-144923, ERF shRNA Plasmid (h): sc-43754-SH, ERF shRNA Plasmid (m): sc-144923-SH, ERF shRNA (h) Lentiviral Particles: sc-43754-V and ERF shRNA (m) Lentiviral Particles: sc-144923-V.

ERF (E-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ERF: 54 kDa.

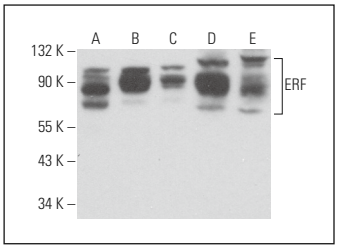
Molecular Weight of phosphorylated ERF: 75-85 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, WiDr cell lysate: sc-24779 or F9 cell lysate: sc-2245.

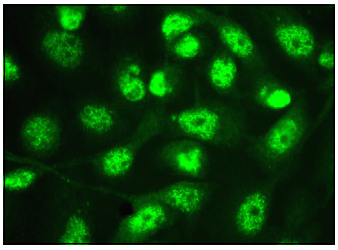
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ERF (E-9): sc-398269. Western blot analysis of ERF expression in K-562 (**A**), OVCAR-3 (**B**), WiDr (**C**), F9 (**D**) and KNRK (**E**) whole cell lysates.



ERF (E-9): sc-398269. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Lackner, A., et al. 2023. The Fgf/Erf/NCoR1/2 repressive axis controls trophoblast cell fate. Nat. Commun. 14: 2559.

STORAGE

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