

# ERF (33L): sc-130372

## 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 (Ets2 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<sub>1</sub> phase.

## REFERENCES

1. Sgouras, D.N., Athanasiou, M.A., Beal, G.J., Jr., Fisher, R.J., Blair, D.G. and Mavrothalassitis, G.J. 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., Rabe, S.M., Langdon, S.D., Fleenor, D.E., Slentz-Kesler, K., Ahmed, M.N., Qumsiyeh, M.B. and Kaufman, R.E. 1997. Genomic structure and chromosomal localization of the novel Ets factor, PE-2 (ERF). *Genomics* 42: 227-235.
3. Liu, D., Pavlopoulos, E., Modi, W., Moschonas, N. and Mavrothalassitis, G. 1997. ERF: genomic organization, chromosomal localization and promoter analysis of the human and mouse genes. *Oncogene* 14: 1445-1451.
4. Oda, T., Kayukawa, K., Hagiwara, H., Yudate, H.T., Masuho, Y., Murakami, Y., Tamura, T.A. and Muramatsu, M.A. 2000. A novel TATA-binding protein-binding protein, ABT1, activates basal transcription and has a yeast homolog that is essential for growth. *Mol. Cell. Biol.* 20: 1407-1418.
5. Locuslink Report (LocusID: 29777). <http://www.ncbi.nlm.nih.gov/locuslink/>

## CHROMOSOMAL LOCATION

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

## SOURCE

ERF (33L) is a mouse monoclonal antibody raised against recombinant ERF of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

ERF (33L) is recommended for detection of ERF 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

Molecular Weight of ERF: 54 kDa.

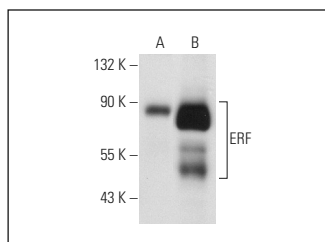
Molecular Weight of phosphorylated ERF: 75-85 kDa.

Positive Controls: ERF (h2): 293T Lysate: sc-159761, RAW 264.7 whole cell lysate: sc-2211 and K-562 whole cell lysate: sc-2203.

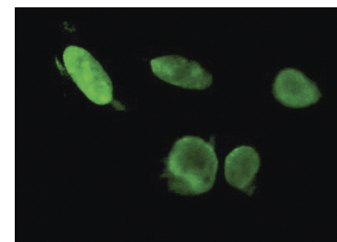
## RECOMMENDED SUPPORT REAGENTS

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, TBS Blotto A Blocking Reagent: sc-2333 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 (33L): sc-130372. Western blot analysis of ERF expression in non-transfected: sc-117752 (A) and human ERF transfected: sc-159761 (B) 293T whole cell lysates.



ERF (33L): sc-130372. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.