SANTA CRUZ BIOTECHNOLOGY, INC.

EFP (D-8): sc-398817

BACKGROUND

EFP (estrogen-responsive finger protein) is a transcription factor, the content of which is regulated by estrogen. It has been identified as a member of the RING finger family, a family of proteins containing a Zn^{2+} binding domain designated the C3HC4 or RING finger. EFP also contains two B box domains and a coiled-coil region (a transactivation domain), which are characteristic of a subgroup of the RING finger family. Estrogen regulates the growth, differentiation and function of target cells in a variety of tissues; however, few genes have been shown to be directly regulated by estrogen. It has been speculated that EFP may mediate estrogen activity in a signaling cascade in which estrogen-ER binding to the estrogen responsive element (ERE) downstream of the EFP gene upregulates EFP gene expression. The EFP gene product may then activate transcription of secondary estrogen responsive genes. Additional studies indicate that the EFP promoter may be regulated by multiple elements and their interacting factors.

REFERENCES

1. Evans, R.M. 1988. The steroid and thyroid hormone receptor superfamily. Science 240: 889-895.
2. Green, S. and Chambon, P. 1988. Nuclear receptors enhance our understanding of transcription regulation. Trends Genet. 4: 309-314.
3. Inoue, S., et al. 1993. Genomic binding-site cloning reveals an estrogen-responsive gene that encodes a RING finger protein. Proc. Natl. Acad. Sci. USA 90: 11117-11121.
4. Orimo, A., et al. 1995. Molecular cloning, structure, and expression of mouse estrogen-responsive finger protein EFP. Co-localization with estrogen receptor mRNA in target organs. J. Biol. Chem. 270: 24406-24013.
5. Borden, K.L., et al. 1995. The solution structure of the RING finger domain from the acute promyelocytic leukaemia proto-oncoprotein PML. EMBO J. 14: 1532-1541.
6. Ikeda, K., et al. 1997. Multiple regulatory elements and binding proteins of the 5'-flanking region of the human estrogen-responsive finger protein (EFP) gene. Biochem. Biophys. Res. Commun. 236: 765-771.
7. Urano, T., et al. 2002. EFP targets 14-3-3 s for proteolysis and promotes breast tumour growth. Nature 417: 871-875.

CHROMOSOMAL LOCATION

Genetic locus: TRIM25 (human) mapping to 17q22; Trim25 (mouse) mapping to 11 C.

SOURCE

EFP (D-8) is a mouse monoclonal antibody raised against amino acids 331-630 of EFP 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-398817 X, 200 µg/0.1 ml.

APPLICATIONS

EFP (D-8) is recommended for detection of EFP 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 EFP siRNA (h): sc-37825, EFP siRNA (m): sc-37826, EFP shRNA Plasmid (h): sc-37825-SH, EFP shRNA Plasmid (m): sc-37826-SH, EFP shRNA (h) Lentiviral Particles: sc-37825-V and EFP shRNA (m) Lentiviral Particles: sc-37826-V.

EFP (D-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

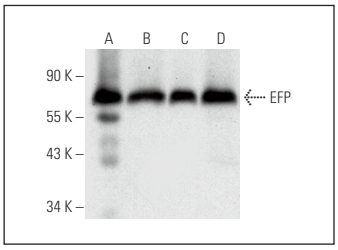
Molecular Weight of EFP: 70 kDa.

Positive Controls: MCF7 nuclear extract: sc-2149, HeLa nuclear extract: sc-2120 or C32 nuclear extract: sc-2136.

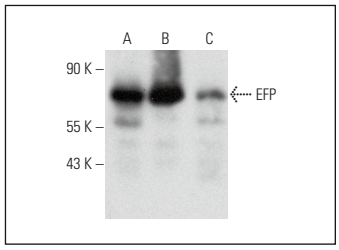
RECOMMENDED SUPPORT REAGENTS

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



EFP (D-8): sc-398817. Western blot analysis of EFP expression in MCF7 (**A**), HeLa (**B**) and C32 (**C**) nuclear extracts and HeLa whole cell lysate (**D**).



EFP (D-8): sc-398817. Western blot analysis of EFP expression in TT (**A**), K-562 (**B**) and C6 (**C**) whole cell lysates.

STORAGE

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

RESEARCH USE

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