SANTA CRUZ BIOTECHNOLOGY, INC.

EFP (E-4): sc-166926

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.

CHROMOSOMAL LOCATION

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

SOURCE

EFP (E-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 150-175 near the N-terminus of EFP of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chian 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-166926 X, 200 µg/0.1 ml.

EFP (E-4) is available conjugated to agarose (sc-166926 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166926 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166926 PE), fluorescein (sc-166926 FITC), Alexa Fluor® 488 (sc-166926 AF488), Alexa Fluor® 546 (sc-166926 AF546), Alexa Fluor® 594 (sc-166926 AF594) or Alexa Fluor® 647 (sc-166926 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166926 AF680) or Alexa Fluor® 790 (sc-166926 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166926 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

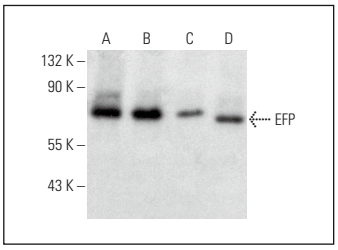
EFP (E-4) is recommended for detection of EFP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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 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.

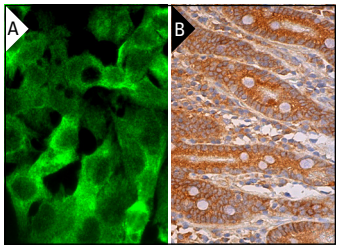
EFP (E-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of EFP: 70 kDa.

DATA



EFP (E-4): sc-166926. Western blot analysis of EFP expression in K-562 (**A**), A549 (**B**), LADMAC (**C**) and RAW 264.7 (**D**) whole cell lysates.



EFP (E-4): sc-166926. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Zhang, P., et al. 2015. TRIM25 has a dual function in the p53/Mdm2 circuit. Oncogene 34: 5729-5738.
2. Sankunny, M., et al. 2020. Identification of nuclear export signal in KLLN suggests potential role in proteasomal degradation in cancer cells. Oncotarget 11: 4625-4636.
3. Jiang, Z., et al. 2021. IFI16 directly senses viral RNA and enhances RIG-I transcription and activation to restrict influenza virus infection. Nat. Microbiol. 6: 932-945.
4. Nasrullah, U., et al. 2023. The E3 ligase TRIM25 impairs apoptotic cell death in colon carcinoma cells via destabilization of caspase-7 mRNA: a possible role of hnRNPH1. Cells 12: 201.
5. Tavakoli, R., et al. 2024. Exploring the impression of TRIM25 gene expression on COVID-19 severity and SARS-CoV-2 viral replication. J. Infect. Public Health 17: 102489.

RESEARCH USE

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