SANTA CRUZ BIOTECHNOLOGY, INC.

SRE-ZBP (C-24): sc-194

BACKGROUND

The best studied of the immediate early genes is the c-Fos proto-oncogene. Many of the signals inducing Fos expression act through a sequence located in the 5' flanking region of c-Fos, designated the serum response element (SRE). The SRE is required for response to activators of protein kinase C and Fos growth-induced signals independent of protein kinase C. Accumulating evidence argues that the SRE is a multifunctional element that may involve the action of multiple SRE-binding proteins. These include the serum response factor (SRF) and the two less well characterized proteins, TCF p62 and BBF p62. An SRE binding nuclear protein, designated SRE-ZBP, is a member of the C_2H_2 zinc finger family of proteins. Like c-Fos, SRE-ZBP is serum-inducible in HeLa cells, although with slower kinetics.

REFERENCES

1. Fisch, T.M., et al. 1987. c-Fos sequences required for basal expression and induction by EGF, TPA and Ca^{2+} ionophore. Mol. Cell. Biol. 7: 3490-3502.
2. Gilman, M.Z. 1988. The c-Fos serum response element responds to protein kinase C-dependent and -independent signals but not to cyclic AMP. Genes Dev. 2: 394-402.
3. Sassonee-Corsi, P., et al. 1988. Transcriptional regulation of the c-Fos proto-oncogene. Nature 334: 314-319.
4. Norman, C., et al. 1988. Isolation and properties of cDNA clones encoding SRF, a transcription factor that binds to the c-Fos serum response element. Cell 55: 989-1003.
5. Ryan, W.A., Jr., et al. 1989. Two distinct cellular phosphoproteins bind to the c-Fos serum response element. EMBO J. 8: 1785-1792.
6. Shaw, P.E., et al. 1989. Repression of c-Fos transcription is mediated through p67SRF bound to the SRE. EMBO J. 8: 2567-2574.
7. Shaw, P.E., et al. 1989. The ability of a ternary complex to form over the serum response element correlates with serum inducibility of the human c-Fos promoter. Cell 56: 563-572.

CHROMOSOMAL LOCATION

Genetic locus: ZNF187 (human) mapping to 6p22.1; Zfp187 (mouse) mapping to 13 A3.1.

SOURCE

SRE-ZBP (C-24) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of SRE-ZBP of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-194 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-194 X, 200 µg/0.1 ml.

APPLICATIONS

SRE-ZBP (C-24) is recommended for detection of SRE-ZBP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

SRE-ZBP (C-24) is also recommended for detection of SRE-ZBP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SRE-ZBP siRNA (h): sc-38362, SRE-ZBP siRNA (m): sc-38363, SRE-ZBP shRNA Plasmid (h): sc-38362-SH, SRE-ZBP shRNA Plasmid (m): sc-38363-SH, SRE-ZBP shRNA (h) Lentiviral Particles: sc-38362-V and SRE-ZBP shRNA (m) Lentiviral Particles: sc-38363-V.

SRE-ZBP (C-24) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of SRE-ZBP isoforms: 55/38 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. David, J.P., et al. 1998. A new method to isolate large numbers of rabbit osteoclasts and osteoclast-like cells: application to the characterization of serum response element binding proteins during osteoclast differentiation. J. Bone Miner. Res. 13: 1730-1738.
2. Rao, G., et al. 2000. Exidant stress stimulates phosphorylation of eIF4E without an effect on global protein synthesis in smooth muscle cells. J. Biol. Chem. 275: 16993-16999.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.