SANTA CRUZ BIOTECHNOLOGY, INC.

SRF (G-20): sc-335

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Serum response factor (SRF) is a transcription factor that binds the serum response element (SRE), a sequence that mediates the transient response of many cellular genes to growth stimulation. SRF-binding sites are also constitutive promotor elements in many muscle-specific promotors. At the c-Fos SRE, formation of a ternary complex containing SRF and its accessory protein p62TCF appears to be important for signal transduction. Two related Ets domain proteins, Elk-1 and SRF accessory protein-1 (SAP-1) have DNA binding properties identical to that of p62TCF. Elk-1 and SAP-1 contain two homologous regions of which the two amino-terminal regions, the Ets domain (box A) and the B box, mediate ternary complex formation with SRF. The third homologous region, the C box located toward the C-terminus of the proteins, contains conserved consensus phosphorylation sites for MAP kinases.

CHROMOSOMAL LOCATION

Genetic locus: SRF (human) mapping to 6p21.1; Srf (mouse) mapping to 17 C.

SOURCE

SRF (G-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within the C-terminus of SRF of human origin.

PRODUCT

Each vial contains 100 µg IgG 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-335 X, 100 µg/0.1 ml.

Blocking peptide available for competition studies, sc-335 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SRF (G-20) is recommended for detection of SRF 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)], 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).

SRF (G-20) is also recommended for detection of SRF in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for SRF siRNA (h): sc-36563, SRF siRNA (m): sc-36564, SSRF shRNA Plasmid (h): sc-36563-SH, SRF shRNA Plasmid (m): sc-36564-SH, SRF shRNA (h) Lentiviral Particles: sc-36563-V and SRF shRNA (m) Lentiviral Particles: sc-36564-V.

SRF (G-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of SRF: 40-67 kDa.

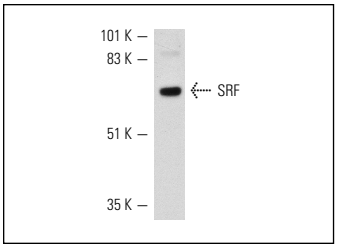
STORAGE

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

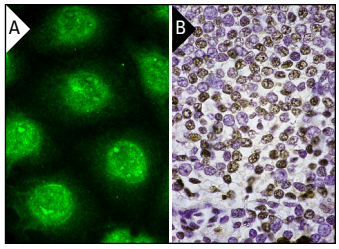
RESEARCH USE

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

DATA



SRF (G-20): sc-335. Western blot analysis of SRF expression in Jurkat nuclear extract.



SRF (G-20): sc-335. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human spleen tissue showing nuclear localization (**B**).

SELECT PRODUCT CITATIONS

1. Sealy, L., et al. 1997. Regulation of the c-Fos serum response element by C/EBPβ. Mol. Cell. Biol. 17: 1744-1755.
2. Ronkina, N., et al. 2011. Stress induced gene expression: a direct role for MAPKAP kinases in transcriptional activation of immediate early genes. Nucleic Acids Res. 39: 2503-2518.
3. Long, X., et al. 2011. Transforming growth factor-β1 (TGF-β1) utilizes distinct pathways for the transcriptional activation of microRNA 143/145 in human coronary artery smooth muscle cells. J. Biol. Chem. 286: 30119-30129.
4. Liang, G., et al. 2011. Serum response factor controls CYLD expression via MAPK signaling pathway. PLoS ONE 6: e19613.
5. Sun, Y., et al. 2011. PCR DNA-array profiling of DNA-binding transcription factor activities in adult mouse tissues. Methods Mol. Biol. 687: 319-331.
6. Asparuhova, M.B., et al. 2011. The transcriptional regulator megakaryoblastic leukemia-1 mediates serum response factor-independent activation of tenascin-C transcription by mechanical stress. FASEB J. 25: 3477-3488.
7. Mylona, A., et al. 2011. The essential function for serum response factor in T-cell development reflects its specific coupling to extracellular signal-regulated kinase signaling. Mol. Cell. Biol. 31: 267-276.
8. Yu, W., et al. 2011. FGFR-4 Arg^{388} enhances prostate cancer progression via extracellular signal-related kinase and serum response factor signaling. Clin. Cancer Res. 17: 4355-4366.