

# SRF (A-11): sc-25290

## 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 promoter elements in many muscle-specific promoters. 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 (A-11) is a mouse monoclonal antibody raised against amino acids 209-508 of SRF of human origin.

## PRODUCT

Each vial contains 200 µg IgM 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-25290 X, 200 µg/0.1 ml.

SRF (A-11) is available conjugated to agarose (sc-25290 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25290 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-25290 PE), fluorescein (sc-25290 FITC) or Alexa Fluor® 488 (sc-25290 AF488) or Alexa Fluor® 647 (sc-25290 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

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## APPLICATIONS

SRF (A-11) is recommended for detection of SRF of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), 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 SRF siRNA (h): sc-36563, SRF siRNA (m): sc-36564, SRF siRNA (r): sc-156005, SRF shRNA Plasmid (h): sc-36563-SH, SRF shRNA Plasmid (m): sc-36564-SH, SRF shRNA Plasmid (r): sc-156005-SH, SRF shRNA (h) Lentiviral Particles: sc-36563-V, SRF shRNA (m) Lentiviral Particles: sc-36564-V and SRF shRNA (r) Lentiviral Particles: sc-156005-V.

SRF (A-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

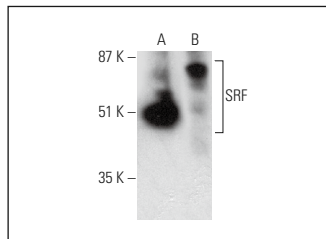
Molecular Weight of SRF: 40-67 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, K-562 nuclear extract: sc-2130 or Jurkat nuclear extract: sc-2132.

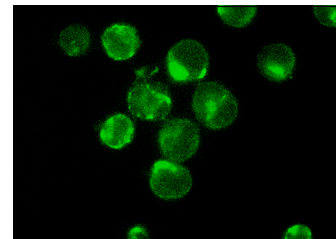
## STORAGE

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

## DATA



SRF (A-11) HRP: sc-25290 HRP. Direct western blot analysis of SRF expression in MCF7 whole cell lysate (A) and Jurkat nuclear extract (B).



SRF (A-11): sc-25290. Immunofluorescence staining of methanol-fixed K-562 cells showing nuclear localization.

## SELECT PRODUCT CITATIONS

1. Rene, C., et al. 2005. Binding of serum response factor to cystic fibrosis transmembrane conductance regulator CArG-like elements, as a new potential CFTR transcriptional regulation pathway. *Nucleic Acids Res.* 33: 5271-5290.
2. Gong, Z., et al. 2009. Influence of culture medium on smooth muscle cell differentiation from human bone marrow-derived mesenchymal stem cells. *Tissue Eng. Part A* 15: 319-330.
3. Hennenberg, M., et al. 2012. Silodosin inhibits noradrenaline-activated transcription factors Elk1 and SRF in human prostate smooth muscle. *PLoS ONE* 7: e50904.
4. Wang, Y., et al. 2014. Super-resolution microscopy reveals decondensed chromatin structure at transcription sites. *Sci. Rep.* 4: 4477.
5. Kircher, P., et al. 2015. Filamin A interacts with the coactivator MKL1 to promote the activity of the transcription factor SRF and cell migration. *Sci. Signal.* 8: ra112.
6. Wettlaufer, S.H., et al. 2017. Distinct PKA regulatory subunits mediate PGE2 inhibition of TGFβ-1-stimulated collagen I translation and myofibroblast differentiation. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 313: L722-L731.
7. Reitzner, S.M., et al. 2018. Expression of striated activator of Rho-signaling in human skeletal muscle following acute exercise and long-term training. *Physiol. Rep.* 6: e13624.
8. Gillespie, Z.E., et al. 2019. Metformin induces the AP-1 transcription factor network in normal dermal fibroblasts. *Sci. Rep.* 9: 5369.
9. Hu, Q., et al. 2021. ACTA1 is inhibited by PAX3-FOXO1 through RhoA-MKL1-SRF signaling pathway and impairs cell proliferation, migration and tumor growth in Alveolar Rhabdomyosarcoma. *Cell Biosci.* 11: 25.

## RESEARCH USE

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