SANTA CRUZ BIOTECHNOLOGY, INC.

SAP-1a (H-3): sc-166823

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 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.

REFERENCES

1. 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.
2. Boxer, L.M., et al. 1989. The sarcomeric Actin CArG-binding factor is indistinguishable from the c-Fos serum response factor. Mol. Cell. Biol. 9: 515-522.
3. Treisman, R. 1990. The SRE: a growth factor responsive transcriptional regulator. Semin. Cancer Biol. 1: 47-58.
4. Malik, R.K., et al. 1991. Epidermal growth factor and other motigens induce binding of a protein complex to the c-fos serum response element in human astrocytoma and other cells. J. Biol. Chem. 266: 8576-8582.
5. Dalton, S., et al. 1992. Characterization of SAP-1, a protein recruited by serum response factor to the c-fos serum response element. Cell 68: 597-612.

CHROMOSOMAL LOCATION

Genetic locus: ELK4 (human) mapping to 1q32.1.

SOURCE

SAP-1a (H-3) is a mouse monoclonal antibody raised against amino acids 154-320 of SAP-1a 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-166823 X, 200 µg/0.1 ml.

SAP-1a (H-3) is available conjugated to agarose (sc-166823 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-166823 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166823 PE), fluorescein (sc-166823 FITC), Alexa Fluor® 488 (sc-166823 AF488), Alexa Fluor® 546 (sc-166823 AF546), Alexa Fluor® 594 (sc-166823 AF594) or Alexa Fluor® 647 (sc-166823 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166823 AF680) or Alexa Fluor® 790 (sc-166823 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

SAP-1a (H-3) is recommended for detection of SAP-1a and SAP-1b of 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).

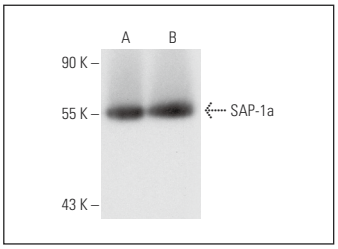
Suitable for use as control antibody for SAP-1 siRNA (h): sc-77346, SAP-1 shRNA Plasmid (h): sc-77346-SH and SAP-1 shRNA (h) Lentiviral Particles: sc-77346-V.

SAP-1a (H-3) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of SAP-1a: 50 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2237 or Jurkat whole cell lysate: sc-2204.

DATA



SAP-1a (H-3): sc-166823. Western blot analysis of SAP-1a expression in SK-N-MC (**A**) and Jurkat (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Wu, J., et al. 2020. lncRNA-CD160 decreases the immunity of $CD8^+$ T cells through epigenetic mechanisms in hepatitis B virus infection. Oncol. Lett. 20: 235-247.
2. Mao, C., et al. 2021. βKlotho inhibits cell proliferation by downregulating ELK4 and predicts favorable prognosis in prostate cancer. Cancer Manag. Res. 13: 6377-6387.
3. Zheng, K., et al. 2023. IGF1R-phosphorylated PYCR1 facilitates ELK4 transcriptional activity and sustains tumor growth under hypoxia. Nat. Commun. 14: 6117.

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.