SANTA CRUZ BIOTECHNOLOGY, INC.

9G8/SRp20 (G-3): sc-390126

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Pre-mRNA splicing enhancer elements are short RNA sequences capable of activating weak splice sites in nearby introns, and they are required for accurate splice site recognition and the control of alternative splicing. Splicing enhancer elements contain specific binding sites for serine/arginine (SR)-rich splicing factors, which include SC35, 9G8, SRp20, and SF2/ASF. The family of SR factors all contain one or more RNA recognition motifs (RRM) and an arginine/serine (RS)-rich domain, and they are essential for constitutive splicing and also regulate splicing in a concentration-dependent manner by influencing the selection of alternative splice sites. The majority of SR pro teins, including SC35 and SRp40, are confined to the nucleus, while SF2/ASF, SRp20, and 9G8 are continuously shuttled between the nucleus and the cyto-plasm and contribute to mRNA transport. The activity of SR proteins in regu-lated splicing is antagonized by members of the hnRNP A/B family of proteins, which induce drastic shifts in the selection of splicing-sites.

REFERENCES

1. Fu, X.D. 1993. Specific commitment of different pre-mRNAs to splicing by single SR proteins. Nature 365: 82-85.
2. Mayeda, A., et al. 1994. Function of conserved domains of hnRNP A1 and other hnRNP A/B proteins. EMBO J. 13: 5483-5495.
3. Jumaa, H. and Nielsen, P.J. 1997. The splicing factor SRp20 modifies splicing of its own mRNA and ASF/SF2 antagonizes this regulation. EMBO J. 16: 5077-5085.
4. Caceres, J.F., et al. 1998. A specific subset of SR proteins shuttles contin-uously between the nucleus and the cytoplasm. Genes Dev. 12: 55-66.
5. Schaal, T.D. and Maniatis, T. 1999. Selection and characterization of pre-mRNA splicing enhancers: identification of novel SR protein-specific enhancer sequences. Mol. Cell. Biol. 19: 1705-1719.

CHROMOSOMAL LOCATION

Genetic locus: SRSF7 (human) mapping to 2p22.1, SRSF3 (human) mapping to 6p21.31; Srsf7 (mouse) mapping to 17 E3, Srsf3 (mouse) mapping to 17 A3.3.

SOURCE

9G8/SRp20 (G-3) is a mouse monoclonal antibody raised against amino acids 1-120 mapping at the N-terminus of 9G8 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

9G8/SRp20 (G-3) is available conjugated to agarose (sc-390126 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390126 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390126 PE), fluorescein (sc-390126 FITC), Alexa Fluor® 488 (sc-390126 AF488), Alexa Fluor® 546 (sc-390126 AF546), Alexa Fluor® 594 (sc-390126 AF594) or Alexa Fluor® 647 (sc-390126 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390126 AF680) or Alexa Fluor® 790 (sc-390126 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

9G8/SRp20 (G-3) is recommended for detection of 9G8 and SRp20 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); partially cross reactive with other pre-mRNA splicing factors.

9G8/SRp20 (G-3) is also recommended for detection of 9G8 and SRp20 in additional species, including equine, canine, bovine and porcine.

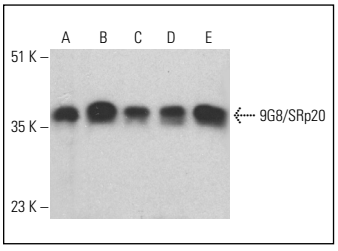
Molecular Weight of 9G8/SRp20: 35 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, Ramos cell lysate: sc-2216 or F9 cell lysate: sc-2245.

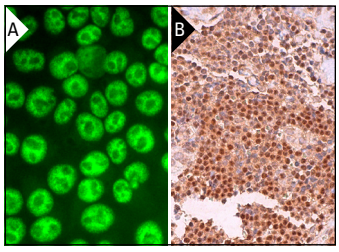
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunopre-cipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immuno-histochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



9G8/SRp20 (G-3) HRP: sc-390126 HRP. Direct western blot analysis of 9G8/SRp20 expression in HeLa nuclear extract (**A**) and BJAB (**B**), F9 (**C**), Ramos (**D**) and K-562 (**E**) whole cell lysates.



9G8/SRp20 (G-3): sc-390126. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing nuclear and cytoplasmic staining of cells in non-germinal center (**B**).

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.