SANTA CRUZ BIOTECHNOLOGY, INC.

SRP9 (G-9): sc-514722

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Short interspersed elements (SINEs) are ubiquitous repetitive DNAs that occur in the mammalian genome. The progenitor of the most common human SINE, the Alu repeat, may be 7SL RNA, which is a component of the signal recognition particle, SRP. SRP is a ribonucleoprotein complex that mediates the targeting of proteins to the endoplasmic reticulum. The "Alu domain" of SRP comprises the heterodimer of the SRP9 and SRP14 proteins, which are bound to the 5' and 3' terminal sequences of SRP RNA. SRP9/14 binding may be crucial to the transcription, maturation, nucleolus localization and transport of SRP RNA. The genes encoding SRP9 and SRP14 map to chromosomes 1q42.12 and 15q22, respectively.

REFERENCES

1. Chang, D.Y., Nelson, B., Bilyeu, T., Hsu, K., Darlington, G.J. and Maria, R.J. 1994. A human Alu RNA-binding protein whose expression is associated with accumulation of small cytoplasmic Alu RNA. Mol. Cell. Biol. 14: 3949-3959.
2. Hsu, K., Chang, D.Y. and Maraia, R.J. 1995. Human signal recognition particle (SRP) Alu-associated protein also binds Alu interspersed repeat sequence RNAs: characterization of human SRP9. J. Biol. Chem. 270: 10179-10186.
3. Larsen, N., Samuelsson, T. and Swieb, C. 1998. The signal recognition particle database (SRPDB). Nucleic Acids Res. 26: 177-178.
4. Weichenrieder, O., Wild, K., Strub, K. and Cusack, S. 2000. Structure and assembly of the Alu domain of the mammalian signal recognition particle. Nature 408: 167-173.
5. LocusLink Report (LocusID: 6726): http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: SRP9 (human) mapping to 1q42.12; Srp9 (mouse) mapping to 1 H5.

SOURCE

SRP9 (G-9) is a mouse monoclonal antibody raised against amino acids 1-49 mapping at the N-terminus of SRP9 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SRP9 (G-9) is available conjugated to agarose (sc-514722 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514722 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514722 PE), fluorescein (sc-514722 FITC), Alexa Fluor® 488 (sc-514722 AF488), Alexa Fluor® 546 (sc-514722 AF546), Alexa Fluor® 594 (sc-514722 AF594) or Alexa Fluor® 647 (sc-514722 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514722 AF680) or Alexa Fluor® 790 (sc-514722 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

SRP9 (G-9) is recommended for detection of SRP9 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SRP9 siRNA (h): sc-41359, SRP9 siRNA (m): sc-41360, SRP9 shRNA Plasmid (h): sc-41359-SH, SRP9 shRNA Plasmid (m): sc-41360-SH, SRP9 shRNA (h) Lentiviral Particles: sc-41359-V and SRP9 shRNA (m) Lentiviral Particles: sc-41360-V.

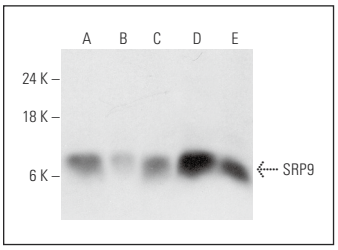
Molecular Weight of SRP9: 9-10 kDa.

Positive Controls: T98G cell lysate: sc-2294, LADMAC whole cell lysate: sc-364189 or HeLa whole cell lysate: sc-2200.

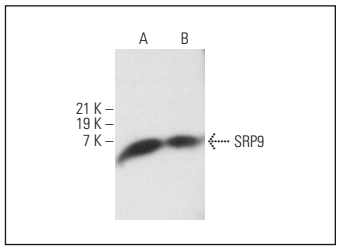
RECOMMENDED SUPPORT REAGENTS

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) Immunoprecipitation: 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.

DATA



SRP9 (G-9): sc-514722. Western blot analysis of SRP9 expression in T98G (**A**), LADMAC (**B**), ES-2 (**C**), Hep G2 (**D**) and HeLa (**E**) whole cell lysates.



SRP9 (G-9): sc-514722. Western blot analysis of SRP9 expression in Hep G2 (**A**) and Caki-1 (**B**) whole cell lysates.

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 for detailed protocols and support products.