SANTA CRUZ BIOTECHNOLOGY, INC.

saposin C (B-10): sc-374119

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The saposin family includes four structurally related activator proteins, saposin A, B, C and D, that are cleaved from the single precursor protein prosaposin. The gene encoding human prosaposin maps to chromosome 10. Prosaposin is synthesized as a protein that is posttranslationally modified to a shorter form and then further glycosylated to yield a secretory product. This form subsequently undergoes partial proteolysis to produce saposin A, B, C and D. Each saposin family member acts in conjunction with hydrolase enzymes to facilitate the breakdown of glycosphingolipids within the lysosome. The saposins modify the environment of target lipids to make them accessible to the active sites of specific enzymes. Saposin A and C are involved in the hydrolysis of glucosylceramidase, and defects in saposin C are linked to Gaucher's disease. Saposin B facilitates the hydrolysis of the sulfate group from cerebroside sulfate, and defects in this protein are responsible for a form of metachromatic leukodystropy, a progressive neurodegenerative condition. Saposin D may stimulate the hydrolysis of sphingomyelin and ceramide, but its exact physiological role is not clear.

CHROMOSOMAL LOCATION

Genetic locus: PSAP (human) mapping to 10q22.1; Psap (mouse) mapping to 10 B4.

SOURCE

saposin C (B-10) is a mouse monoclonal antibody raised against amino acids 311-391 mapping within an internal region of saposin C 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.

STORAGE

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

APPLICATIONS

saposin C (B-10) is recommended for detection of prosaposin and mature saposin C 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).

Suitable for use as control antibody for saposin siRNA (h): sc-44456, saposin siRNA (m): sc-44457, saposin shRNA Plasmid (h): sc-44456-SH, saposin shRNA Plasmid (m): sc-44457-SH, saposin shRNA (h) Lentiviral Particles: sc-44456-V and saposin shRNA (m) Lentiviral Particles: sc-44457-V.

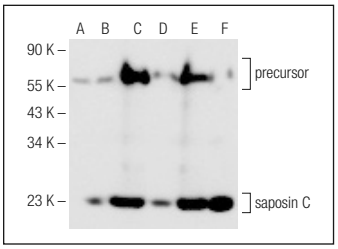
Molecular Weight of prosaposin: 70 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or saposin (h2): 293T Lysate: sc-170822.

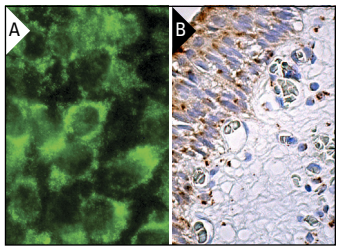
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



saposin C (B-10): sc-374119. Western blot analysis of saposin expression in non-transfected 293T: sc-117752 (**A**), human saposin transfected 293T: sc-170822 (**B**), A-431 (**C**), HeLa (**D**), Hep G2 (**E**) and NTERA-2 cl.D1 (**F**) whole cell lysates.



saposin C (B-10): sc-374119. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic staining of urothelial cells (**B**).

SELECT PRODUCT CITATIONS

1. Valdez, C., et al. 2020. Progranulin mutations result in impaired processing of prosaposin and reduced glucocerebrosidase activity. Hum. Mol. Genet. 29: 716-726.

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.