SANTA CRUZ BIOTECHNOLOGY, INC.

Serglycin (h): 293 Lysate: sc-113121

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Proteoglycans stored in the secretory granules of many hematopoietic cells contain a protease-resistant peptide core that may be important for neutralizing hydrolytic enzymes. Serglycin is associated with the macromolecular complex of granzymes and perforin, which may serve as a mediator of granule-mediated apoptosis. Serglycin is a chondroitin sulfate-bearing proteoglycan that functions in the transport of cationic granular proteins. The immune system relies on granule exocytosis as the main pathway for elimination of virus-infected cells and tumor cells by cytotoxic T lymphocytes and natural killer cells, thus indicating an important role for Serglycin in normal immune function.

REFERENCES

1. Raja, S.M., Wang, B., Dantuluri, M., Desai, U.R., Demeler, B., Spiegel, K., Metkar, S.S. and Froelich, C.J. 2002. Cytotoxic cell granule-mediated apoptosis. Characterization of the macromolecular complex of granzyme B with Serglycin. J. Biol. Chem. 277: 49523-49530.
2. Lemansky, P., Gerecitano-Schmidek, M., Das, R.C., Schmidt, B. and Hasilik, A. 2003. Targeting myeloperoxidase to azurophilic granules in HL-60 cells. J. Leukoc. Biol. 74: 542-550.
3. Lieberman, J. 2003. The ABCs of granule-mediated cytotoxicity: new weapons in the arsenal. Nat. Rev. Immunol. 3: 361-370.
4. Schick, B.P., Ho, H.C., Brodbeck, K.C., Wrigley, C.W. and Klimas, J. 2003. Serglycin proteoglycan expression and synthesis in embryonic stem cells. Biochim. Biophys. Acta 1593: 259-267.
5. Abrink, M., Grujic, M. and Pejler, G. 2004. Serglycin is essential for maturation of mast cell secretory granule. J. Biol. Chem. 279: 40897-40905.
6. Niemann, C.U., Cowland, J.B., Klausen, P., Askaa, J., Calafat, J. and Borregaard, N. 2004. Localization of Serglycin in human neutrophil granulocytes and their precursors. J. Leukoc. Biol. 76: 406-415.
7. Veugelers, K., Motyka, B., Frantz, C., Shostak, I., Sawchuk, T. and Bleackley, R.C. 2004. The granzyme B-Serglycin complex from cytotoxic granules requires Dynamin for endocytosis. Blood 103: 3845-3853.

CHROMOSOMAL LOCATION

Genetic locus: SRGN (human) mapping to 10q22.1.

PRODUCT

Serglycin (h): 293 Lysate represents a lysate of human Serglycin transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

Serglycin (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive Serglycin antibodies. Recommended use: 10-20 µl per lane.

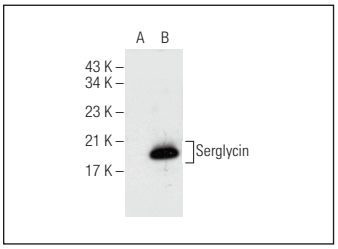
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

Serglycin (C-11): sc-374657 is recommended as a positive control antibody for Western Blot analysis of enhanced human Serglycin expression in Serglycin transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

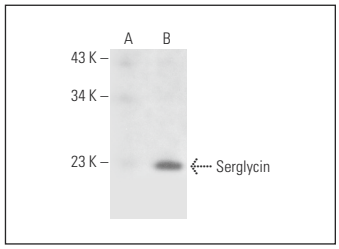
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Serglycin (C-11): sc-374657. Western blot analysis of Serglycin expression in non-transfected: sc-110760 (**A**) and human Serglycin transfected: sc-113121 (**B**) 293 whole cell lysates.



Serglycin (H-9): sc-393521. Western blot analysis of Serglycin expression in non-transfected: sc-110760 (**A**) and human Serglycin transfected: sc-113121 (**B**) 293 whole cell lysates.

RESEARCH USE

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