

Serglycin (H-9): sc-393521

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., et al. 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., et al. 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., et al. 2003. Serglycin proteoglycan expression and synthesis in embryonic stem cells. *Biochim. Biophys. Acta* 1593: 259-267.
5. Abrink, M., et al. 2004. Serglycin is essential for maturation of mast cell secretory granule. *J. Biol. Chem.* 279: 40897-40905.
6. Niemann, C.U., et al. 2004. Localization of Serglycin in human neutrophil granulocytes and their precursors. *J. Leukoc. Biol.* 76: 406-415.
7. Veuglers, K., et al. 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.

SOURCE

Serglycin (H-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 112-139 near the C-terminus of Serglycin 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.

Blocking peptide available for competition studies, sc-393521 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Serglycin (H-9) is recommended for detection of precursor and mature Serglycin 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 Serglycin siRNA (h): sc-44093, Serglycin shRNA Plasmid (h): sc-44093-SH and Serglycin shRNA (h) Lentiviral Particles: sc-44093-V.

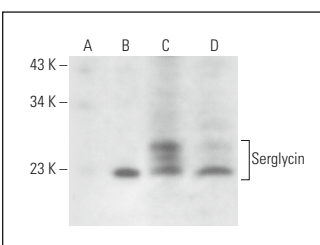
Molecular Weight of Serglycin: 22/24 kDa.

Positive Controls: Serglycin (h): 293 Lysate: sc-113121, HL-60 whole cell lysate: sc-2209 or THP-1 cell lysate: sc-2238.

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



Serglycin (H-9): sc-393521. Western blot analysis of Serglycin expression in non-transfected 293: sc-110760 (A), human Serglycin transfected 293: sc-113121 (B), HL-60 (C) and THP-1 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Roy, A., et al. 2017. Serglycin as a potential biomarker for glioma: association of Serglycin expression, extent of mast cell recruitment and glioblastoma progression. *Oncotarget* 8: 24815-24827.
2. Zhu, Y., et al. 2021. Significance of Serglycin and its binding partners in autocrine promotion of metastasis in esophageal cancer. *Theranostics* 11: 2722-2741.

RESEARCH USE

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