SANTA CRUZ BIOTECHNOLOGY, INC.

versican (5C1): sc-47777

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Versican (chondroitin sulfate proteoglycan 2) is a large extracellular matrix proteoglycan involved in cell growth and differentiation. Important as a structural molecule, versican creates loose and hydrated matrices during key events in development and disease. The protein contains hyaluronic acid and glycosminoglycan-binding domains, epidermal growth factor-like repeats, a lectin-like sequence and a complement regulatory protein-like domain. Splice variants differ greatly in length and degree of modification by glycosaminoglycan chains. Accumulation around smooth muscle cells in lesions of atherosclerosis suggests a role for versican in atherogenesis. Versican, differentially expressed in human melanoma, plays a role in tumor development and may be a reliable marker for clinical diagnosis. The organization of HA- and versican-rich pericellular matrices may faciliatate migration and mitosis by diminishing cell surface adhesivity and affecting cell shape through steric exclusion and the viscous properties of HA proteoglycan gels. The human versican gene maps to chromosome 5q14.2.

REFERENCES

1. Dours-Zimmermann, M.T. and Zimmermann, D.R. 1994. A novel glycosaminoglycan attachment domain identified in two alternative splice variants of human versican. J. Biol. Chem. 269: 32992-32998.
2. Evanko, S.P., et al. 1999. Formation of hyaluronan- and versican-rich pericellular matrix is required for proliferation and migration of vascular smooth muscle cells. Arterioscler. Thromb. Vasc. Biol. 19: 1004-1013.
3. Lemire, J.M., et al. 1999. Versican/PG-M isoforms in vascular smooth musscle cells. Arterioscler. Thromb. Vasc. Biol. 19: 1630-1639.
4. Wight, T.N. 2002. Versican: a versatile extracellular matrix proteoglycan in cell biology. Curr. Opin. Cell Biol. 14: 617-623.
5. Touad, M., et al. 2002. Versican is differentially expressed in human melonoma and may play a role in tumor development. Am. J. Pathol. 160: 549-557.
6. LocusLink Report (LocusID: 1462). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: VCAN (human) mapping to 5q14.2.

SOURCE

versican (5C1) is a mouse monoclonal antibody raised against purified aorta versican of bovine origin.

PRODUCT

Each vial contains 200 µg IgG 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

versican (5C1) is recommended for detection of versican of human and bovine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for versican siRNA (h): sc-41903, versican shRNA Plasmid (h): sc-41903-SH and versican shRNA (h) Lentiviral Particles: sc-41903-V.

Molecular Weight of versican: 380 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or MIA PaCa-2 cell lysate: sc-2285.

SELECT PRODUCT CITATIONS

1. Chen, J.L., et al. 2013. Stromal responses among common carcinomas correlated with clinicopathologic features. Clin. Cancer Res. 19: 5127-5135.

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.