

# versican (C-18): sc-26707

## 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 glycosaminoglycan-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 glycoaminoglycan 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 facilitate 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., Zimmermann, D. R. 1994. A novel glycosaminoglycan attachment domain identified in two alternative splice variants of human versican. *J. Biol. Chem.* 52: 32992-32998.
2. Lemire, J. M., Braun, K. R., Maurel, P., Kaplan, E. D., Schwatz, S. M., Wight, T.N. 1999. Versican/Pg-M isoforms in vascular smooth muscle cells. *Arterioscler. Thromb. Vasc. Biol.* 7: 1630-1639.
3. Evanko, S. P., Angello, J. C., Wight, T. N. 1999. Formation of hyaluronan- and versican-rich pericellular matrix is required for proliferation and migration of vascular smooth muscle cells. *Arterioscler. Thromb. Vasc.* 4: 1004-1013.
4. Wight, T.N. 2002. Versican: a versatile extracellular matrix proteoglycan in cell biology. *Curr. Opin. Cell Biol.* 5: 617-623.
5. Touad, M., Villena, J., Barrance, C., Arumi-Uria, M., Bassols, A. 2002. Versican is differentially expressed in human melanoma and may play a role in tumor development. *Am. J. Pathol.* 2: 549-557.

## CHROMOSOMAL LOCATIONS

Genetic locus: VCAN (human) mapping to 5q14.2; Vcan (mouse) mapping to 13 C3.

## SOURCE

versican (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of versican of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-26707 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

versican (C-18) is recommended for detection of versican of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

versican (C-18) is also recommended for detection of versican in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for versican siRNA (h): sc-41903, versican siRNA (m): sc-41904, versican shRNA Plasmid (h): sc-41903-SH, versican shRNA Plasmid (m): sc-41904-SH, versican shRNA (h) Lentiviral Particles: sc-41903-V and versican shRNA (m) Lentiviral Particles: sc-41904-V.

Molecular Weight of versican: 380 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, JAR cell lysate: sc-2276 or HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **versican (4C5): sc-47769** or **versican (5C1): sc-47777**, our highly recommended monoclonal alternatives to versican (C-18).