SANTA CRUZ BIOTECHNOLOGY, INC.

versican (4C5): sc-47769

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 verisican gene maps to chromosome 5q14.2.

CHROMOSOMAL LOCATION

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

SOURCE

versican (4C5) is a mouse monoclonal antibody raised against purified aorta versican of bovine origin.

PRODUCT

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

versican (4C5) is available conjugated to agarose (sc-47769 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-47769 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to fluorescein (sc-47769 FITC), Alexa Fluor® 488 (sc-47769 AF488), Alexa Fluor® 546 (sc-47769 AF546), Alexa Fluor® 594 (sc-47769 AF594) or Alexa Fluor® 647 (sc-47769 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-47769 AF680) or Alexa Fluor® 790 (sc-47769 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

versican (4C5) 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.

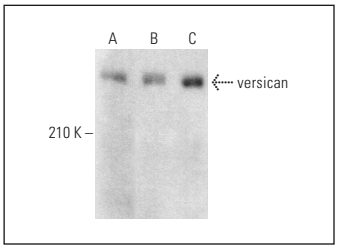
Molecular Weight of versican: 380 kDa.

Positive Controls: SK-MEL-24 whole cell lysate: sc-364259, IMR-32 cell lysate: sc-2409 or human heart extract: sc-363763.

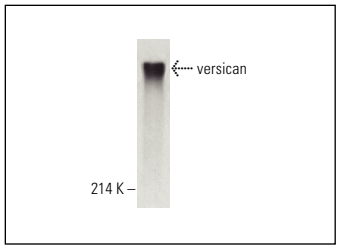
STORAGE

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

DATA



versican (4C5): sc-47769. Western blot analysis of versican expression in HeLa (**A**), SK-MEL-24 (**B**) and IMR-32 (**C**) whole cell lysates.



versican (4C5): sc-47769. Western blot analysis of versican expression in human heart tissue extract. Detection reagent used: anti-mouse IgM-HRP.

SELECT PRODUCT CITATIONS

1. Sullivan, C.S., et al. 2018. Perineuronal net protein neurocan inhibits NCAM/EphA3 repellent signaling in GABAergic interneurons. Sci. Rep. 8: 6143.
2. Chen, Y., et al. 2019. PLGA-collagen-ECM hybrid scaffolds functionalized with biomimetic extracellular matrices secreted by mesenchymal stem cells during stepwise osteogenesis-co-adipogenesis. J. Mater. Chem. B 7: 7195-7206.
3. Su, Y., et al. 2019. Pre-aggregation of scalp progenitor dermal and epidermal stem cells activates the Wnt pathway and promotes hair follicle formation in *in vitro* and *in vivo* systems. Stem Cell Res. Ther. 10: 403.
4. Arciniegas, E., et al. 2019. Galectin-1 and galectin-3 and their potential binding partners in the dermal thickening of keloid tissues. Am. J. Dermatopathol. 41: 193-204.
5. Lu, K., et al. 2021. Injectable platelet rich fibrin facilitates hair follicle regeneration by promoting human dermal papilla cell proliferation, migration, and trichogenic inductivity. Exp. Cell Res. 409: 112888.
6. Mun, S., et al. 2022. Transcriptome profile of membrane and extracellular matrix components in ligament-fibroblastic progenitors and cementoblasts differentiated from human periodontal ligament cells. Genes 13: 659.
7. Abu El-Asrar, A.M., et al. 2022. Differential expression and localization of ADAMTS proteinases in proliferative diabetic retinopathy. Molecules 27: 5977.

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.