

Polyclonal Anti- Versican Picoband™ Antibody

Catalog Number: PB9453

Description

Gene Name	versican
Recommended Protein Name	Versican core protein
Lot No.	0941512Da755352
Size	100µg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	Reacts with: human, mouse, rat
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Versican (65-92aa KWSKIEVDKNGKDLKETTTLVAQNGNIK), different from the related mouse and rat sequences by two amino acids.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .

Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Ms, Rat	Hu	-
Immunohistochemistry (Paraffin-embedded Section)	0.5-1µg/ml	Hu	-	By Heat

WB: The detection limit for Versican is approximately 0.1ng/lane under reducing conditions.

Tested Species: In-house tested species with positive results.

Predicted Species: Species predicted to be fit for the product based on sequence similarities.

By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage: At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time.

Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P).

Background

Versican (VCAN), also known as CSPG2, is a large extracellular matrix proteoglycan that is present in a variety of human tissues. Versican is a large chondroitin sulfate proteoglycan with an apparent molecular mass of more than 1000kDa. The Versican gene is mapped on 5q14.2-q14.3. The human versican gene contains 15 exons spanning more than 90 kb. The distribution of versican by using affinity-purified polyclonal antibodies that recognize the core protein of the prominent versican splice variants V0 and V1. Versican staining was noted in the central and peripheral nervous system, in the basal layer of the epidermis, and on the luminal surface of some glandular epithelia. Biochemical purification of LLC-conditioned medium led to identification of the extracellular matrix proteoglycan versican, which is upregulated in many human tumors including lung cancer, as a macrophage activator that acts through TLR2 and its coreceptors TLR6 and CD14. By activating TLR2:TLR6 complexes and inducing TNF-alpha secretion by myeloid cells, versican strongly enhances LLC metastatic growth.

Reference

1. Bode-Lesniewska, B., Dours-Zimmermann, M. T., Odermatt, B. F., Briner, J., Heitz, P. U., Zimmermann, D. R. Distribution of the large aggregating proteoglycan versican in adult human tissues. *J. Histochem. Cytochem.* 44: 303-312, 1996.
2. Dours-Zimmermann, M. T., Zimmermann, D. R. A novel glycosaminoglycan attachment domain identified in two alternative splice variants of human versican. *J. Biol. Chem.* 269: 32992-32998, 1994.
3. Naso, M. F., Morgan, J. L., Buchberg, A. M., Siracusa, L. D., Iozzo, R. V. Expression pattern and mapping of the murine versican gene (Cspg2) to chromosome 13. *Genomics* 29: 297-300, 1995.