

PRODUCT INFORMATION



Versican G1 Domain (human, recombinant)

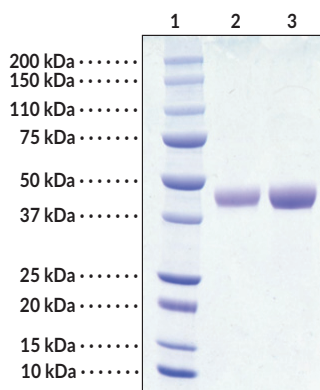
Item No. 44299

Overview and Properties

Synonyms:	Chondroitin Sulfate Proteoglycan 2, Chondroitin Sulfate Proteoglycan Core Protein 2, CSPG2, ERVR, GHAP, Glial Hyaluronate-binding Protein, Large Fibroblast Proteoglycan, PG-M, VCAN, Versican Core Protein, Versican Proteoglycan, WGN, WGN1
Source:	Recombinant human C-terminal His-tagged versican G1 domain expressed in mammalian cells
Amino Acids:	21-350
Uniprot No.:	P13611
Molecular Weight:	~37.9 kDa
Storage:	-80°C (as supplied)
Stability:	≥1 year
Purity:	≥90% estimated by SDS-PAGE
Supplied in:	1X PBS, pH 7.4, with 10% glycerol and 0.5 mM TCEP

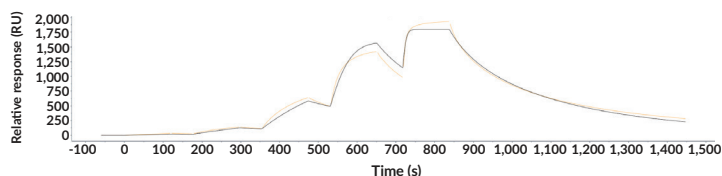
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Images



Lane 1: MW Markers
Lane 2: Versican G1 Domain (2 µg)
Lane 3: Versican G1 Domain (4 µg)

SDS-PAGE Analysis of Versican G1 Domain.
This protein has a calculated molecular weight of ~37.9 kDa, it runs slightly higher possibly due to glycosylation.



Versican G1 Domain binds hyaluronic acid. Versican G1 Domain binds hyaluronic acid with nanomolar affinity. Biotinylated hyaluronic acid was immobilized on a biotin CAPture chip (Cytiva). The binding affinity was determined by SPR analysis on a Biacore™ 8K using single-cycle kinetics with five concentrations of Versican G1 Domain.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/10/2026

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Versican is a secreted proteoglycan and member of the hyalactan family of proteoglycans.^{1,2} It is composed of an N-terminal G1 domain containing a secretory signal peptide, an immunoglobulin-like motif, and two proteoglycan tandem repeats followed by two glycosaminoglycan (GAG) binding regions, α -GAG and β -GAG, and a C-terminal G3 domain containing two EGF-like repeats, a carbohydrate recognition domain, and a complement-binding protein-like motif.^{2,3} Alternative splicing of versican produces four isoforms (V0-V3) that are expressed in a tissue- and development-specific manner and differ based on the GAG-binding region, containing either α - and β -GAG (V0), β -GAG only (V1), α -GAG only (V2), or no GAG-binding regions (V3).² Versican is expressed in a variety of tissues, including connective tissue, cartilage, neural tissues, and vessels.^{4,5} It interacts with a variety of ligands, including hyaluronan at the G1 domain and fibulin-1 and -2 at the G3 domain.³ It is involved in tissue and organ development, including cardiac development, and is a structural macromolecule of the extracellular matrix (ECM) in various tissues in adulthood.^{3,5,6} Versican levels are increased in tumor tissue or peritumoral stromal cells in a wide range of cancers and are associated with poor outcomes.⁷ Mutations in *VCAN*, the gene encoding versican, are the cause of Wagner syndrome, a hereditary vitreoretinopathy characterized by early-onset syneresis and accelerated liquefaction of the vitreous.⁸ Cayman's Versican G1 Domain (human, recombinant) protein can be used for binding assay, ELISA, and Western blot (WB) applications.

References

1. Zimmerman, D.R. and Ruoslahti, E. Multiple domains of the large fibroblast proteoglycan, versican. *EMBO J.* **8**(10), 2975-2981 (1989).
2. Wu, Y.J., La Pierre, D.P., Wu, J., et al. The interaction of versican with its binding partners. *Cell Res.* **15**(7), 483-494 (2005).
3. Wight, T.N., Day, A.J., Kang, I., et al. V3: An enigmatic isoform of the proteoglycan versican. *Am. J. Physiol. Cell Physiol.* **325**(2), C519-C537 (2023).
4. Bode-Lesniewska, B., Dours-Zimmermann, M.T., Odermatt, B.F., et al. Distribution of the large aggregating proteoglycan versican in adult human tissues. *J. Histochem. Cytochem.* **44**(4), 303-312 (1996).
5. Islam, S. and Watanabe, H. Versican: A dynamic regulator of the extracellular matrix. *J. Histochem. Cytochem.* **68**(11), 763-775 (2020).
6. Watanabe, H. Versican and versikine: The dynamism of the extracellular matrix. *Proteoglycan Res.* **1**(4), e13 (2023).
7. Ricciardelli, C., Sakko, A.J., Ween, M.P., et al. The biological role and regulation of versican levels in cancer. *Cancer Metastasis Rev.* **28**(1-2), 233-245 (2009).
8. Ghoraba, H.H., Sears, J., and Traboulsi, E.I. Hereditary vitreoretinopathies: Molecular diagnosis, clinical presentation and management. *Clin. Exp. Ophthalmol.* **53**(3), 281-291 (2025).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM