Recombinant Human Versican Isoform V3 His-tag

Catalog Number: 3054-VN

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived human Versican protein Leu21-Tyr646, with a C-terminal 6-His tag Accession # P13611-4
N-terminal Sequence Analysis	Leu21
Predicted Molecular Mass	71 kDa

SPECIFICATIONS

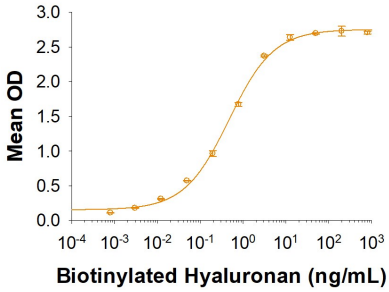
SDS-PAGE	78-89 kDa, reducing conditions
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, ≤ -20 °C under sterile conditions after reconstitution.

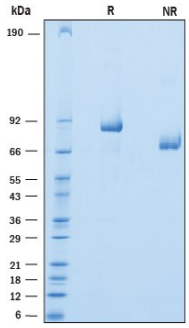
DATA

Binding Activity



When Recombinant Human Versican Isoform V3 (Catalog # 3054-VN) is coated at 0.25 µg/mL, 100 µL/well, Biotinylated Hyalurinan binds with an ED_{50} of 0.25-1.5 ng/mL.

SDS-PAGE



2 µg/lane of Recombinant Human Versican Isoform V3 was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 78-89 kDa and 67-80 kDa, respectively.

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BACKGROUND

Versican (versatile proteoglycan; also known as PG-M, CSPG2, ERVR, GHAP, WGN, WGN1) is a 500-600 kDa, secreted member of the large aggregating chondroitin sulfate proteoglycan family, which includes aggrecan, neurocan, and brevican (1-3). The canonical sequence of human Versican (Isoform V0) is 3396 amino acids (aa) in length. It contains an N-terminal hyaluronan-binding region, two large, alternately spliced GAG attachment domains (GAG alpha and GAG beta), two EGF-like domains, a selectin-like region, and a complement regulatory protein-like domain (2). Human Versican has multiple alternative splice variants that include variations mainly in the GAG regions. This product is the Isoform V3 which includes one mutation at aa 348 (Pro to Arg) and lacks of the entire GAG domains (aa 349-3089) compared to Isoform V0. Versican is known to associate with hyaluronan (4), tenascin (5-7), fibronectin (8), fibulin (9), and CD44 (10) in the extracellular matrix that may contribute to the malignant properties of tumor cells (11). It has an anti-adhesive effect on cells, facilitating tumor migration and invasion (12). The multiple alternative splice variants of human Versican could affect cell-cell and cell-matrix adhesion (13-15), migration (16), proliferation, apoptosis (17), and mesenchymal-epithelial transition (18). The Versican gene is expressed in several different tissues, and it is over-expressed in several cancer types, including prostate (19), brain (20), ovary (21), breast (22) and melanoma (11).

References:

1. Shinomura, T. *et al.* (1993) J. Biol. Chem. **268**:14461.
2. Zimmermann, D. R. and E.Ruoslahti (1989) EMBO J. **8**:2975.
3. Margolis, R. U. and R. K. Margolis (1994) Methods Enzymol. **245**:105.
4. Lebaron, R. G. *et al.* (1992) J. Biol. Chem. **267**:10003.
5. Perides, G. *et al.* (1993) Anat. Embryol. (Berl.) **188**:467.
6. Aspberg, A. *et al.* (1995) Proc. Natl. Acad. Sci. U.S.A. **92**:10590.
7. Aspberg, A. *et al.* (1997) Proc. Natl. Acad. Sci. U.S.A. **94**:10116.
8. Braunewell, K. H. *et al.* (1995) Eur. J. Neurosci. **7**:805.
9. Olin, A. I. *et al.* (2001) J. Biol. Chem. **276**:1253.
10. Kawashima, H. *et al.* (2000) J. Biol. Chem. **275**:35448.
11. Touab, M. *et al.* (2002) Am. J. Pathol. **160**:549.
12. Yamagata, M. *et al.* (1989) J. Biol. Chem. **264**:8012.
13. Wu, Y. *et al.* (2002) J. Biol. Chem. **277**:12294.
14. Zheng, P. S. *et al.* (2004) J. Cell Sci. **117**:5887.
15. Lemire, J. M. *et al.* (2002) J. Cell Physiol. **190**:38.
16. Mjaatvedt, C.H. *et al.* (1998) Dev. Biol. **202**:56.
17. Sheng, W. *et al.* (2005) Mol. Biol. Cell. **16**:1330.
18. Sheng, W. *et al.* (2006) Mol. Biol. Cell. **17**:2009.
19. Ricciardelli, C. *et al.* (1998) Clin. Cancer Res. **4**:963.
20. Paulus, W. *et al.* (1996) J. Neuropathol. Exp. Neurol. **55**:528.
21. Voutilainen, K. *et al.* (2003) Int. J. Cancer **107**:359.
22. Nara, Y. *et al.* (1997) Histochem. J. **29**:21.

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