LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human VCAN Ig-like V type domain
Catalog Number: hRP-1242
Manufacturer: LD Biopharma, Inc.

Introduction

Human versican (VCAN) gene is a member of the aggrecan/versican proteoglycan family. VCAN gene encoded is a large chondroitin sulfate proteoglycan and is a major component of the extracellular matrix. This protein is a hyaluronic acid binding protein, which involved in cell adhesion, proliferation, proliferation, migration and angiogenesis and plays a central role in tissue morphogenesis and maintenance. VCAN contains a Ig-like V type domain, which usually involved in a specific protein-protein interaction.

Full-length extracellular Ig-like type V domain of human VCAN cDNA (21 – 146 aa) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is expressed in E.coli as inclusion bodies. The final product was refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified.

Gene Symbol:	VCAN Ig-like Type V domain (CSPG2; ERVR; GHAP; WGN)
Accession Number:	NP_004376
Species:	Human
Size:	50 µg / Vial
Composition:	1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Yang,W. et al., *Versican V2 isoform enhances angiogenesis by regulating endothelial cell activities and fibronectin expression*. FEBS Lett. 587 (2), 185-192. (2013).

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Li,D., et al., *Tumor-produced versican V1 enhances hCAP18/LL-37 expression in macrophages through activation of TLR2 and vitamin D3 signaling to promote ovarian cancer progression in vitro*. PLoS ONE 8 (2), E56616 (2013)

Potapov V, et al.,*"Protein-Protein Recognition: Juxtaposition of Domain and Interface Cores in Immunoglobulins and Other Sandwich-like Proteins". J. Mol. Biol.* 342 (2): 665–679. (2004).

Applications

1. May be used for in vitro non-glycosylated VCAN Ig-like V type domain mediated cell proliferation regulation study with this protein as either coating matrix protein or as soluble factor
2. May be used for VCAN Ig-like V type domain protein – protein interaction assay.
3. Enzymatic substrate for various proteases.
4. May be used for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGGEFLHKVKVGKSPPVRGSLSGKVSLPCHFSTMPTLPPS
YNTSEFLRIKWSKIEVDKNGKDLKETTVLVAQNGNIKIGQDYKGRVSVPTHPEAVGDASLTVVK
LLASDAGLYRCDVMYGIEDTQDTVSLT