Recombinant Human NOV

20150227BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**100-351**
Size:	20 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	*4856*
Synonyms:	NOV; CCN3; NOVh; IBP-9; IGFBP9; IGFBP-9

NOV is a member of the CCN family of secreted cysteine rich regulatory proteins. The full length NOV protein contains four structural domains that confer distinct, and sometimes opposing, biological activities. Elevated expression of NOV is associated with certain tumors, including Wilm's tumor and most nephroblastomas. However, in other tumor types and certain cancer cell lines, increased tumorgenicity and proliferation is correlated with decreased NOV expression. Additionally, NOV induces cell adhesion and cell migration by signaling through specific cell surface integrins and by binding to heparin sulfate proteoglycans and to fibulin 1C. NOV has also been reported to exert proangiogenic activities. Recombinant human NOV is a 36.2 kDa protein containing 331 amino acid residues. It is composed of four distinct structural domains (modules); the IGF binding protein (IGFBP) domain, the von Willebrand Factor C (VWFC) domain, the Thrombospondin type-I (TSP type-1) domain, and a C-terminal cysteine knot-like domain (CTCK).

Sequence

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MQVAATQRCP PQCPGRCPAT PPTCAPGVRA VLDGCSCCLV
CARQRGESCS DLEPCDESSG LYCDRSADPS NQTGICTAVE
GDNCVFDGVI YRSGEKFQPS CKFQCTCRDG QIGCVPRCQL
DVLLPEPNCP APRKVEVPGE CCEKWICGPD EEDSLGGLTL
AAYRPEATLG VEVSDSSVNC IEQTTEWTAC SKSCGMGFST
RVTNRNRQCE MLKQTRLCMV RPCEQEPEQP TDKKGKKCLR
TKKSLKAIHL QFKNCTSLHT YKPRFCGVCS DGRCCTPHNT
KTIQAEFQCS PGQIVKKPVM VIGTCTCHTN CPKNNEAFLQ
ELELKTTRGK M
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Database References

Protein RefSeq:	NP_115618.3
Uniprot ID:	Q9UIW2
mRNA RefSeq:	NM_032242.3

Product Specifications

Expressed in	E. coli
Purity	> 95% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	331
MW:	36.2 kDa

Biological Activity: Determined by a cell proliferation assay using BALB/c 3T3 cells. The expected ED50 for this effect is 1.0-2.0 µg/ml

AVOID REPEATED FREEZE AND THAW CYCLES!