

# Human CCN3 / NOV Protein (His Tag)

Catalog Number: 10264-H08B



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CCN3; IBP-9; IGFBP-9; IGFBP9; NOVh

### Protein Construction:

A DNA sequence encoding the full length of human NOV (NP\_002505.1) (Met 1-Met 357) was expressed, fused with a polyhistidine tag at the C-terminus.

**Source:** Human

**Expression Host:** Baculovirus-Insect Cells

## QC Testing

**Purity:** > 94 % as determined by SDS-PAGE

### Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion of Balb/3T3 mouse embryonic fibroblast cells. When cells are added to CCN3-coated plates (10 µg/ml, 100 µl/well), >50% cells will adhere specifically after 60 minutes at 37 °C .

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Thr 32

### Molecular Mass:

The secreted recombinant human NOV consists of 337 amino acids and predicts a molecular mass of 37 kDa. It migrates as an approximately 47 kDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile 50mM Tris, 100mM NaCl, 0.5mM PMSF, 10mM Imidazole, 10% Glycerol, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

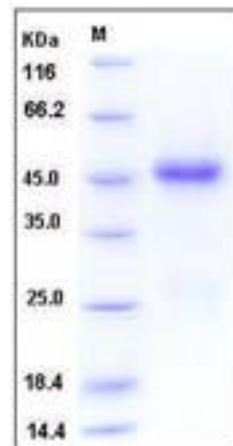
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Protein NOV homolog, also known as Nephroblastoma-overexpressed gene protein homolog, NOV, and CCN3, is a putative ligand for integrin receptors, is tightly associated with the extracellular matrix and mediates diverse cellular functions, including cell adhesion and proliferation. CCN3 has been shown to negatively regulate growth although it promotes migration in a cell type-specific manner. This secreted protein belongs to the CCN family, and its expression was observed in a broad variety of tissues from the early stage of development, and altered expression of CCN3 has been observed in a variety of tumors, including hepatocellular carcinomas, Wilm's tumors, Ewing's sarcomas, gliomas, rhabdomyosarcomas, and adrenocortical carcinomas. Mature CCN3 protein has five distinct modules and truncated protein variants with altered function are found in many cancers. CCN3 acts through the core stem cell signalling pathways including Notch and Bone Morphogenic Protein, connecting CCN3 with the modulation of self-renewal and maturation of a number of cell lineages including hematopoietic, osteogenic and chondrogenic. CCN3 may affect the extracellular environment of the niche for hematopoietic stem cells. CCN3 has emerged as a key player in stem cell regulation, hematopoiesis and a crucial component within the bone marrow microenvironment.

## References

1.Manara MC, *et al.* (2002) The expression of ccn3(nov) gene in musculoskeletal tumors. *Am J Pathol.* 160(3): 849-59. 2.Lin CG, *et al.* (2003) CCN3 (NOV) is a novel angiogenic regulator of the CCN protein family. *J Biol Chem.* 278(26): 24200-8. 3.Vallacchi V, *et al.* (2009) CCN3/nephroblastoma overexpressed matricellular protein regulates integrin expression, adhesion, and dissemination in melanoma. *Cancer Res.* 68(3): 715-23.

**Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.**

**For US Customer:** Fax: 267-657-0217 • Tel: 215-583-7898

**Global Customer:** Fax :+86-10-5862-8288 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>