



**LD Biopharma, Inc.**  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human NOV Protein  
**Catalog Number:** hRP-1131  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

The protein encoded by human protein NOV homolog (NOV) gene is a small secreted cysteine-rich protein and a member of the CCN family of regulatory proteins. CCN family proteins associate with the extracellular matrix and play an important role in cardiovascular and skeletal development, fibrosis and cancer development.

Full-length mature protein of human NOV cDNA (32 - 357aa, derived from BC015028) 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:** NOV (CCN3; IBP-9; IGFBP-9; NOVh)  
**Accession Number:** NP\_002505.1  
**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

Tan, T.W., et al., *CCN3 increases BMP-4 expression and bone mineralization in osteoblasts*. J. Cell. Physiol. 227 (6), 2531-2541 (2012)

Chen, P.C., et al., *CCN3 increases cell motility and ICAM-1 expression in prostate cancer cells*. Carcinogenesis 33 (4), 937-945 (2012)



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Burren, C.P., et al., *Binding properties and distribution of insulin-like growth factor binding protein-related protein 3 (IGFBP-rP3/NovH), an additional member of the IGFBP Superfamily*. J. Clin. Endocrinol. Metab. 84 (3), 1096-1103 (1999)

## Applications

1. May be used for in vitro NOV mediated various type of cells differentiation regulation study with this protein as either coating matrix protein or as soluble factor.
2. May be used for NOV protein – protein interaction assay.
3. May be used as enzymatic substrate for various proteases.
4. May be used for specific antibody production.

## Quality Control

Purity: > 90% by SDS-PAGE.

## Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGEFTQRCPPQCPGRCPATPPTCAPGVRAVLGDGCSCCLV  
CARQRGESCSLDLEPCDESSGLYCDRSADPSNQTGICTAVEGDNCVFDGVIYRSGEKFPSCKFQ  
CTCRDQGIGCVPRQLDVLLEPEPNCAPARKVEVPGECCCKWICGPDEEDSLGGLTLAAYRPEAT  
LGVEVSDSSVNCIEQTTEWTACSKSCGMGFSTRVTNRNRQCEMLKQTRLCMVRPCEQEPEQPTD  
KKGKCLRTKSLKAIHLQFKNCTSLHTYKPRFCGVCS DGRCC TPHNTKTIQAEFQCSPGQIVK  
KPV MVIGTCTCHTNC PKNNEAFLQELELKTTRGKM