

## **Nov Polyclonal Antibody**

**Catalog # AP73595** 

### **Specification**

# **Nov Polyclonal Antibody - Product Information**

Application WB
Primary Accession P48745
Reactivity Human

Reactivity
Host
Clonality
Human, Mouse
Rabbit
Polyclonal

## **Nov Polyclonal Antibody - Additional Information**

### **Gene ID 4856**

#### **Other Names**

NOV; CCN3; IGFBP9; NOVH; Protein NOV homolog; NovH; CCN family member 3; Insulin-like growth factor-binding protein 9; IGF-binding protein 9; IGFBP-9; Nephroblastoma-overexpressed gene protein homolog

## **Dilution**

WB~~Western Blot: 1/500 - 1/2000. IHC-p: 1/100-1/300. ELISA: 1/20000. Not yet tested in other applications.

### **Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

# **Storage Conditions**

-20°C

## **Nov Polyclonal Antibody - Protein Information**

Name CCN3 (HGNC:7885)

Synonyms IGFBP9, NOV, NOVH

## **Function**

Immediate-early protein playing a role in various cellular processes including proliferation, adhesion, migration, differentiation and survival (PubMed:<a

 $href="http://www.uniprot.org/citations/15181016" target="\_blank">15181016</a>, PubMed: <a href="http://www.uniprot.org/citations/15611078" target="\_blank">15611078</a>, PubMed: <a href="http://www.uniprot.org/citations/12695522" target="\_blank">12695522</a>, PubMed: <a href="http://www.uniprot.org/citations/21344378" target="_blank">21344378</a>, PubMed: <a href="http://www.uniprot.org/citations/12050162" target="_blank">12050162</a>). Acts by binding to integrins or membrane receptors such as NOTCH1 (PubMed: <a href="http://www.uniprot.org/citations/12050162" target="_blank">15181016</a>/a>, PubMed: <a href="http://www.uniprot.org/citations/12050162" target="_blank">12050162</a>). Acts by$ 

href="http://www.uniprot.org/citations/12695522" target="\_blank">12695522</a>, PubMed:<a href="http://www.uniprot.org/citations/21344378" target="\_blank">21344378</a>, PubMed:<a

href="http://www.uniprot.org/citations/15611078" target="\_blank">15611078</a>). Essential



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regulator of hematopoietic stem and progenitor cell function (PubMed:<a href="http://www.uniprot.org/citations/17463287" target=" blank">17463287</a>). Inhibits myogenic differentiation through the activation of Notch-signaling pathway (PubMed: <a href="http://www.uniprot.org/citations/12050162" target="\_blank">12050162</a>). Inhibits vascular smooth muscle cells proliferation by increasing expression of cell-cycle regulators such as CDKN2B or CDKN1A independently of TGFB1 signaling (PubMed:<a href="http://www.uniprot.org/citations/20139355" target=" blank">20139355</a>). Ligand of integrins ITGAV:ITGB3 and ITGA5:ITGB1, acts directly upon endothelial cells to stimulate pro-angiogenic activities and induces angiogenesis. In endothelial cells, supports cell adhesion, induces directed cell migration (chemotaxis) and promotes cell survival (PubMed: <a href="http://www.uniprot.org/citations/12695522" target=" blank">12695522</a>). Also plays a role in cutaneous wound healing acting as integrin receptor ligand. Supports skin fibroblast adhesion through ITGA5:ITGB1 and ITGA6:ITGB1 and induces fibroblast chemotaxis through ITGAV:ITGB5. Seems to enhance bFGF-induced DNA synthesis in fibroblasts (PubMed: <a href="mailto:red">- Red (PubMed: <a href="mailto:red") href="http://www.uniprot.org/citations/15611078" target=" blank">15611078</a>). Involved in bone regeneration as a negative regulator (By similarity). Enhances the articular chondrocytic phenotype, whereas it repressed the one representing endochondral ossification (PubMed: <a href="http://www.uniprot.org/citations/21871891" target="\_blank">21871891</a>). Impairs pancreatic beta-cell function, inhibits beta-cell proliferation and insulin secretion (By similarity). Plays a role as negative regulator of endothelial pro-inflammatory activation reducing monocyte adhesion, its anti-inflammatory effects occur secondary to the inhibition of NF-kappaB signaling pathway (PubMed: <a href="http://www.uniprot.org/citations/21063504" target=" blank">21063504</a>). Contributes to the control and coordination of inflammatory processes in atherosclerosis (By similarity). Attenuates inflammatory pain through regulation of IL1B- and TNF-induced MMP9, MMP2 and CCL2 expression. Inhibits MMP9 expression through ITGB1 engagement (PubMed:<a href="http://www.uniprot.org/citations/21871891" target=" blank">21871891</a>).

#### **Cellular Location**

Secreted. Cytoplasm. Cell junction, gap junction. Note=Localizes at the gap junction in presence of GJA1. {ECO:0000250|UniProtKB:Q9QZQ5}

## **Tissue Location**

Expressed in endiothelial cells (at protein level) (PubMed:21063504). Expressed in bone marrow, thymic cells and nephroblastoma. Increased expression in Wilms tumor of the stromal type.

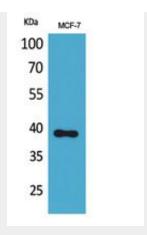
## **Nov Polyclonal Antibody - Protocols**

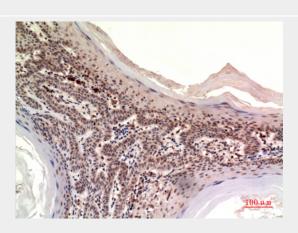
Provided below are standard protocols that you may find useful for product applications.

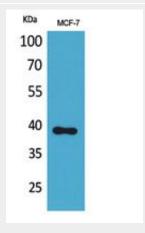
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

### **Nov Polyclonal Antibody - Images**

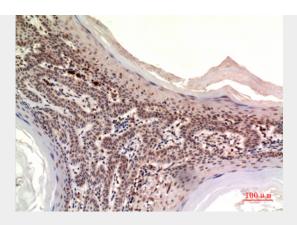












# **Nov Polyclonal Antibody - Background**

Immediate-early protein playing a role in various cellular processes including proliferation, adhesion, migration, differentiation and survival (PubMed:15181016, PubMed:15611078, PubMed:12695522, PubMed:21344378, PubMed:12050162). Acts by binding to integrins or membrane receptors such as NOTCH1 (PubMed:12695522, PubMed:21344378, PubMed:15611078). Essential regulator of hematopoietic stem and progenitor cell function (PubMed:17463287). Inhibits myogenic differentiation through the activation of Notch-signaling pathway (PubMed:12050162). Inhibits vascular smooth muscle cells proliferation by increasing expression of cell-cycle regulators such as CDKN2B or CDKN1A independently of TGFB1 signaling (PubMed:20139355). Ligand of integrins ITGAV:ITGB3 and ITGA5:ITGB1, acts directly upon endothelial cells to stimulate pro-angiogenic activities and induces angiogenesis. In endothelial cells, supports cell adhesion, induces directed cell migration (chemotaxis) and promotes cell survival (PubMed:12695522). Plays also a role in cutaneous wound healing acting as integrin receptor ligand. Supports skin fibroblast adhesion through ITGA5:ITGB1 and ITGA6:ITGB1 and induces fibroblast chemotaxis through ITGAV:ITGB5. Seems to enhance bFGF-induced DNA synthesis in fibroblasts (PubMed:15611078). Involved in bone regeneration as a negative regulator (By similarity). Enhances the articular chondrocytic phenotype, whereas it repressed the one representing endochondral ossification (PubMed:21871891). Impairs pancreatic beta-cell function, inhibits beta-cell proliferation and insulin secretion (By similarity). Plays a role as negative regulator of endothelial pro-inflammatory activation reducing monocyte adhesion, its anti- inflammatory effects occur secondary to the inhibition of NF- kappaB signaling pathway (PubMed:21063504). Contributes to the control and coordination of inflammatory processes in atherosclerosis (By similarity). Attenuates inflammatory pain through regulation of IL1B- and TNF-induced MMP9, MMP2 and CCL2 expression. Inhibits MMP9 expression through ITGB1 engagement (PubMed:21871891).