

**Nov Polyclonal Antibody  
Catalog # AP73595**

## Specification

## Nov Polyclonal Antibody - Product Information

Application	WB, IHC-P
Primary Accession	<a href="#">P48745</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	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; IBP-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.  
IHC-P~~N/A

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

[21344378](http://www.uniprot.org/citations/21344378)). Essential regulator of hematopoietic stem and progenitor cell function (PubMed:[17463287](http://www.uniprot.org/citations/17463287)). Inhibits myogenic differentiation through the activation of Notch-signaling pathway (PubMed:[12050162](http://www.uniprot.org/citations/12050162)). Inhibits vascular smooth muscle cells proliferation by increasing expression of cell-cycle regulators such as CDKN2B or CDKN1A independently of TGFβ1 signaling (PubMed:[20139355](http://www.uniprot.org/citations/20139355)). Ligand of integrins ITGA5: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](http://www.uniprot.org/citations/12695522)). 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 ITGA5:ITGB1. Seems to enhance bFGF-induced DNA synthesis in fibroblasts (PubMed:[15611078](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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-κB signaling pathway (PubMed:[21063504](http://www.uniprot.org/citations/21063504)). Contributes to the control and coordination of inflammatory processes in atherosclerosis (By similarity). Attenuates inflammatory pain through regulation of IL1β- and TNF-induced MMP9, MMP2 and CCL2 expression. Inhibits MMP9 expression through ITGB1 engagement (PubMed:[21871891](http://www.uniprot.org/citations/21871891)). Brain osteoanabolic hormone (By similarity). Drives osteogenesis in osteochondral skeletal stem cells (PubMed:[38987585](http://www.uniprot.org/citations/38987585)). During lactation, maintains the maternal skeleton and viability of offspring (By similarity).

#### Cellular Location

Secreted {ECO:0000250|UniProtKB:Q64299}. Cytoplasm. Cell junction, gap junction.  
Note=Localizes at the gap junction in presence of GJA1. {ECO:0000250|UniProtKB:Q9QZQ5}

#### Tissue Location

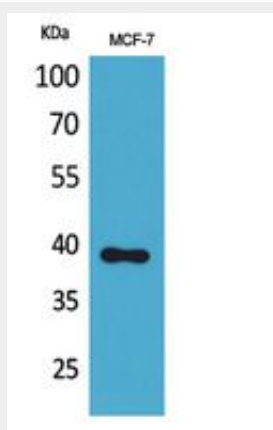
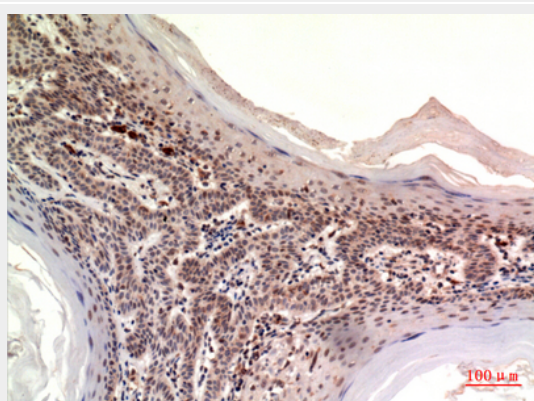
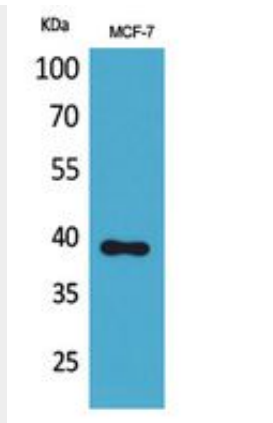
Expressed in endothelial cells (at protein level) (PubMed:21063504). Expressed in bone marrow and thymic cells

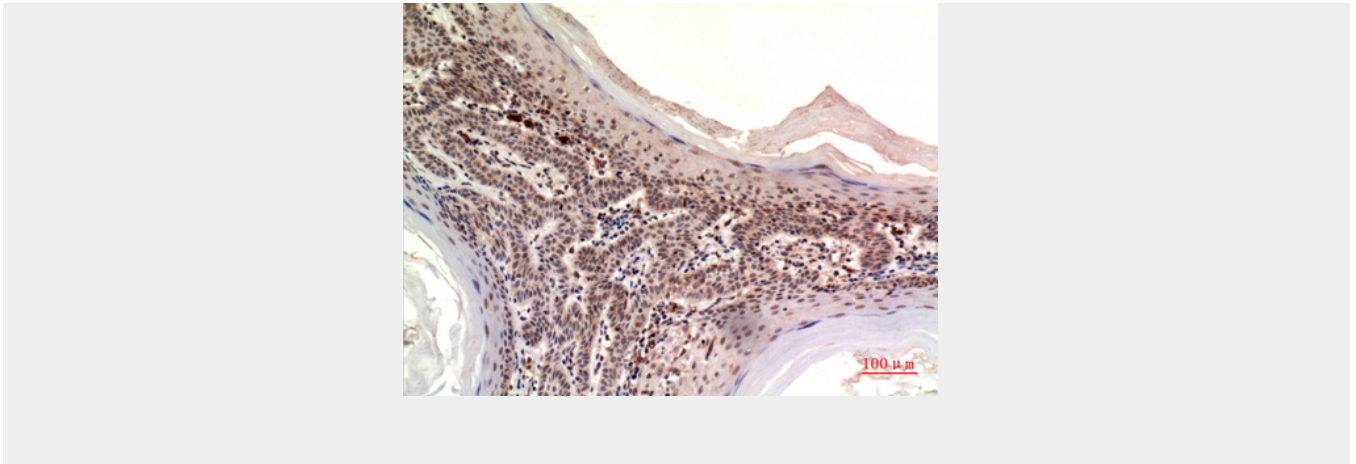
### Nov Polyclonal Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [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 TGFβ1 signaling (PubMed:20139355). Ligand of integrins ITGA5:ITGB1 and ITGA6: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 ITGA5:ITGB1. 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-κB signaling pathway (PubMed:21063504). Contributes to the control and coordination of inflammatory processes in atherosclerosis (By similarity). Attenuates inflammatory pain through regulation of IL1β- and TNF-induced MMP9, MMP2 and CCL2 expression. Inhibits MMP9 expression through ITGB1 engagement (PubMed:21871891).