



BACKGROUND

The CCN (CTGF/Cyr61/NOV) family of genes presently consists of six distinct members, which encode proteins that participate in fundamental biological processes such as cell proliferation, adhesion, migration, differentiation, wound healing, angiogenesis and several pathologies including fibrosis and tumorigenesis. Whereas Cyr61 and CTGF act as positive regulators of cell growth, nov (nephroblastoma overexpressed, CCN3 or NOVH) provides the first example of a CCN protein with negative regulatory properties and the first example of aberrant expression being associated with tumor development. In animals and humans increased expression of nov is detected in tissues where calcium is a key regulator, such as the adrenal gland, central nervous system, bone and cartilage, heart muscle and kidney. The nov protein associates with Notch1 extracellular domain and inhibits myoblast differentiation via Notch signaling pathway. The gene that expresses nov is located on human chromosome 8q24.1 and was originally cloned following discovery of its avian homolog as a consequence of overexpression in virally induced nephroblastoma.

REFERENCES

1. Perbal, B. 2001. NOV (nephroblastoma overexpressed) and the CCN family of genes: structural and functional issues. *Mol. Pathol.* 54: 57-79.
2. Kocialkowski, S., et al. 2001. Expression of the human NOV gene in first trimester fetal tissues. *Anat. Embryol.* 203: 417-427.
3. Lafont, J., et al. 2002. The expression of novH in adrenocortical cells is down-regulated by TGF β 1 through c-Jun in a Smad-independent manner. *J. Biol. Chem.* 277: 41220-41229.
4. Li, C.L., et al. 2002. A role for CCN3 (NOV) in calcium signalling. *Mol. Pathol.* 55: 250-261.
5. Sakamoto, K., et al. 2002. The nephroblastoma overexpressed gene (NOV/ccn3) protein associates with Notch1 extracellular domain and inhibits myoblast differentiation via Notch signaling pathway. *J. Biol. Chem.* 277: 29399-29405.

CHROMOSOMAL LOCATION

Genetic locus: NOV (human) mapping to 8q24.12; Nov (mouse) mapping to 15 D1.

SOURCE

nov (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of nov of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-18677 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

nov (N-20) is recommended for detection of nov of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for nov siRNA (h): sc-39333, nov siRNA (m): sc-39334, nov shRNA Plasmid (h): sc-39333-SH, nov shRNA Plasmid (m): sc-39334-SH, nov shRNA (h) Lentiviral Particles: sc-39333-V and nov shRNA (m) Lentiviral Particles: sc-39334-V.

Molecular Weight of glycosylated nov: 44-48 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Jiang, W.G., et al. 2004. Differential expression of the CCN family members Cyr61, CTGF and Nov in human breast cancer. *Endocr. Relat. Cancer* 11: 781-791.
2. Minhas, U., et al. 2011. Pattern of expression of CCN family members Cyr61, CTGF and nov in human acute and chronic wounds. *Exp. Ther. Med.* 2: 641-645.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **nov (D-9): sc-136967** or **nov (F-8): sc-136966**, our highly recommended monoclonal alternatives to nov (N-20).