

**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 the Notch1 extracellular domain and inhibits myoblast differentiation via the Notch signaling pathway. The gene that expresses nov is located on human chromosome 8q24.12 and was originally cloned following discovery of its avian homolog as a consequence of overexpression in virally induced nephroblastoma.

**CHROMOSOMAL LOCATION**

Genetic locus: NOV (human) mapping to 8q24.12.

**SOURCE**

nov (D-9) is a mouse monoclonal antibody raised against amino acids 48-118 (deletion amino acid 104) mapping near the N-terminus of nov of human origin.

**PRODUCT**

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

nov (D-9) is available conjugated to agarose (sc-136967 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-136967 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-136967 PE), fluorescein (sc-136967 FITC), Alexa Fluor® 488 (sc-136967 AF488), Alexa Fluor® 546 (sc-136967 AF546), Alexa Fluor® 594 (sc-136967 AF594) or Alexa Fluor® 647 (sc-136967 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-136967 AF680) or Alexa Fluor® 790 (sc-136967 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

nov (D-9) is recommended for detection of nov of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

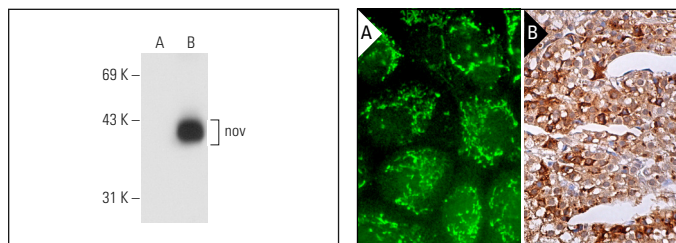
Suitable for use as control antibody for nov siRNA (h): sc-39333, nov shRNA Plasmid (h): sc-39333-SH and nov shRNA (h) Lentiviral Particles: sc-39333-V.

Molecular Weight of glycosylated nov: 44-48 kDa.

Positive Controls: nov (h): 293T Lysate: sc-159751 or HeLa whole cell lysate: sc-2200.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**

nov (D-9): sc-136967. Western blot analysis of nov expression in non-transfected: sc-117752 (A) and human nov transfected: sc-159751 (B) 293T whole cell lysates.

nov (D-9): sc-136967. Immunofluorescence staining of formalin-fixed A-431 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic and nuclear staining of glandular cells (B).

**SELECT PRODUCT CITATIONS**

1. Chhabra, A., et al. 2017. Activation induced cell death (AICD) of human melanoma antigen-specific TCR engineered CD8 T cells involves JNK, Bim and p53. *Expert Opin. Ther. Targets* 21: 117-129.
2. Serras, A.S., et al. 2021. The secretome of human neonatal mesenchymal stem cells modulates doxorubicin-induced cytotoxicity: impact in non-tumor cells. *Int. J. Mol. Sci.* 22: 13072.

**STORAGE**

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

**RESEARCH USE**

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

**PROTOCOLS**

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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