

nov (h2): 293 Lysate: sc-170566

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.

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., Yeger, H., Kingdom, J., Perbal, B. and Schofield, P.N. 2001. Expression of the human nov gene in first trimester fetal tissues. *Anat. Embryol.* 203: 417-427.
3. Li, C.L., Martinez, V., He, B., Lombet, A. and Perbal, B. 2002. A role for CCN3 (nov) in calcium signalling. *Mol. Pathol.* 55: 250-261.
4. Sakamoto, K., Yamaguchi, S., Ando, R., Miyawaki, A., Kabasawa, Y., Takagi, M., Li, C.L., Perbal, B. and Katsube, K. 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.
5. Lafont, J., Laurent, M., Thibout, H., Lallemand, F., Le Bouc, Y., Atfi, A. and Martinier, C. 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.

CHROMOSOMAL LOCATION

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

PRODUCT

nov (h2): 293 Lysate represents a lysate of human nov transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

nov (h2): 293 Lysate is suitable as a Western Blotting positive control for human reactive nov antibodies. Recommended use: 10-20 μ l per lane.

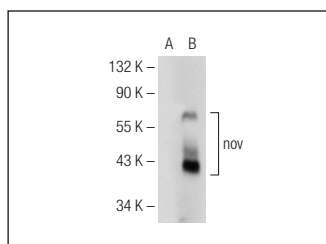
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

nov (F-8): sc-136966 is recommended as a positive control antibody for Western Blot analysis of enhanced human nov expression in nov transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.

DATA



nov (F-8): sc-136966. Western blot analysis of nov expression in non-transfected: sc-110760 (A) and human nov transfected: sc-170566 (B) 293 whole cell lysates.

RESEARCH USE

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