

NOV/CCN3 Polyclonal Antibody(Capture/Detector)

catalog number: AN003940P

Note: Centrifuge before opening to ensure complete recovery of vial contents.

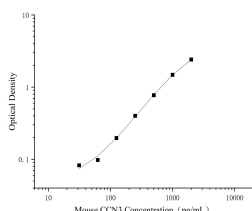
Description

Reactivity	Mouse;Rat
Immunogen	Recombinant Mouse NOV/CCN3 Protein expressed by Mammalian
Host	Rabbit
Isotype	Rabbit IgG
Purification	Antigen Affinity Purification
Buffer	Phosphate buffered solution, pH 7.2, containing 0.05% proclin 300.

Applications Recommended Dilution

ELISA Capture	2-8 µg/mL
ELISA Detector	0.1-0.4 µg/mL

Data



Sandwich ELISA-Recombinant Mouse NOV/CCN3 Protein standard curve. Background subtracted standard curve using Anti-NOV/CCN3 antibody(AN003940P)(Capture), Anti-NOV/CCN3 antibody(AN003940P)(Detector). The reference range value is 31.2 - 2,000 pg/mL for mouse.

Preparation & Storage

Storage	Store at 4°C valid for 12 months or -20°C valid for long term storage, avoid freeze / thaw cycles.
Shipping	The product is shipped with ice pack, upon receipt, store it immediately at the temperature recommended.

Background

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NOV, also called CCN3, is one of six CCN (CYR61/CTGF/NOV) secreted proteins which share a common multimodular organization. NOV/CCN3 contains an N-terminal IGFBP domain that appears to be non-functional and a vWF type C and thrombospondin type I domain which mediate oligomerization and matrix interactions, respectively. The C-terminal cysteine knot domain interacts with several partners, including the matrix protein fibulin 1C, Notch-1, and CCN2, which it may heterodimerize. NOV/CCN3 also interacts with the gap junction protein Connexin43 and mediates suppression of proliferation. It also binds the calcium binding protein S100A4 and promotes calcium channel activation. The 354 amino acid (aa), 44 kDa human NOV/CCN3 shares 80% aa identity with mouse, rat and canine NOV/CCN3, and 78% aa identity with bovine NOV/CCN3. NOV/CCN3 also shows 38 - 50% aa identity with other family members including WISP proteins, except for WISP-2/CCN5 which lacks the cysteine knot. NOV/CCN3 is widely expressed developmentally, especially in muscle, endothelium, nervous system, adrenal cortex and chondrocytes. In transformed cells, a 32 kDa N-terminally truncated form lacks the signal sequence is localized to the nucleus. Truncation allows a C-terminal nuclear localization sequence to be active. Nuclear NOV/CCN3 acts as a transcriptional repressor but promotes proliferation, presumably by interfering with growth control. Full length NOV/CCN3 is a secreted extracellular matrix protein which inhibits cell growth. Interaction of NOV/CCN3 with integrins α v β 3 and α 5 β 1 mediates endothelial cell adhesion, induces chemotaxis and promotes angiogenesis. Over-expression of NOV/CCN3 downregulates myogenic genes such as MyoD.

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