

NOV/CCN3 Protein, Human (sf9, His)

Cat. No.:	HY-P701327
Synonyms:	rHuNephroblastoma Overexpressed Gene Protein; IBP-9; CCN3; IGFBP9; NOVH
Species:	Human
Source:	Sf9 insect cells
Accession:	P48745/NP_002505.1 (T32-M357)
Gene ID:	4856
Molecular Weight:	approximately 47 kDa

PROPERTIES

Appearance	Solution
Formulation	Supplied as a 0.2 µm filtered solution of 50mM Tris, 100mM NaCl, 0.5mM PMSF, 10mM Imidazole, 10% Glycerol, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

DESCRIPTION

Background

NOV/CCN3 protein, an immediate-early participant in cellular processes, orchestrates a wide array of functions, including proliferation, adhesion, migration, differentiation, and survival. This multifaceted role is underscored by its interactions with integrins and membrane receptors, such as NOTCH1, influencing diverse cellular responses. As an essential regulator of hematopoietic stem and progenitor cell function, NOV/CCN3 inhibits myogenic differentiation through the activation of the Notch-signaling pathway. It also exerts inhibitory effects on vascular smooth muscle cells proliferation independently of TGFB1 signaling, showcasing its regulatory influence on cell-cycle regulators. Functioning as a ligand for integrins ITGAV:ITGB3 and ITGA5:ITGB1, NOV/CCN3 directly stimulates pro-angiogenic activities, induces angiogenesis, and promotes endothelial cell adhesion, migration, and survival. Additionally, it plays a role in cutaneous wound healing, supports skin fibroblast adhesion and chemotaxis, and enhances bFGF-induced DNA synthesis in fibroblasts. In bone regeneration, NOV/CCN3 acts as a negative regulator, influencing the articular chondrocytic phenotype while repressing endochondral ossification. It also impacts pancreatic beta-cell function by inhibiting proliferation and insulin secretion. Notably, NOV/CCN3 acts as a negative regulator of endothelial pro-inflammatory activation, attenuates inflammatory pain, and interacts with various proteins, including FBLN1, NOTCH1, GJA1/CX43, ITGA5:ITGB1, ITGAV:ITGB3, ITGAV:ITGB5, and ZDHHC22. These intricate interactions highlight NOV/CCN3's central role in orchestrating diverse cellular functions and regulatory pathways.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA