Cytokines

Human Recombinant NOV

Nephroblastoma overexpressed gene protein

Catalog #	78198	10 µg
	78198.1	50 µg

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Product Description

Neuroblastoma overexpressed gene protein (NOV) is a member of the CCN (CYR61/CTGF/NOV) family. NOV contains four structural domains: a non-functional N-terminal insulin-like growth factor-binding protein (IGFBP) domain, a von Willebrand factor C (vWFC) domain that mediates oligomerization, a thrombospondin type I domain that mediates matrix interactions, and a C-terminal cysteine knot domain that interacts with fibulin 1C, Notch1, and CCN2 (Perbal 2004; Perbal 2006; Perbal et al.; Sakamoto et al.). NOV interacts with integrins αVβ3 and α5β1 to mediate adhesion of endothelial cells, chemotaxis, and angiogenesis (Lin et al.). It also interacts with gap junction protein connexin43 to suppress cell proliferation (Fu et al.). During development, NOV is expressed in multiple tissues including: muscle, endothelium, nervous system, adrenal cortex, and chondrocytes (Martinerie et al.; Perbal 2004; Perbal 2006; Snaith et al.). In cancers expressing the N-terminally truncated version, NOV localizes to the nucleus and promotes proliferation (Planque et al.).

Product Information

Alternative Names:	CCN3, CCN family member 3, IBP-9, IGF-binding protein 9, IGFBP-9, Insulin-like growth factor-binding protein 9, Nephroblastoma-overexpressed gene protein homolog, NovH, Protein NOV homolog
Accession Number:	P48745
Amino Acid Sequence:	TQRCPPQCPG RCPATPPTCA PGVRAVLDGC SCCLVCARQR GESCSDLEPC DESSGLYCDR SADPSNQTGI CTAVEGDNCV FDGVIYRSGE KFQPSCKFQC TCRDGQIGCV PRCQLDVLLP EPNCPAPRKV EVPGECCEKW ICGPDEEDSL GGLTLAAYRP EATLGVEVSD SSVNCIEQTT EWTACSKSCG MGFSTRVTNR NRQCEMLKQT RLCMVRPCEQ EPEQPTDKKG KKCLRTKKSL KAIHLQFKNC TSLHTYKPRF CGVCSDGRCC TPHNTKTIQA EFQCSPGQIV KKPVMVIGTC TCHTNCPKNN EAFLQELELK TTRGKM
Predicted Molecular Mass:	35.7 kDa
Species:	Human
Cross Reactivity:	Reported to be species-specific
Formulation:	Lyophilized after dialysis against phosphate-buffered saline.
Source:	CHO

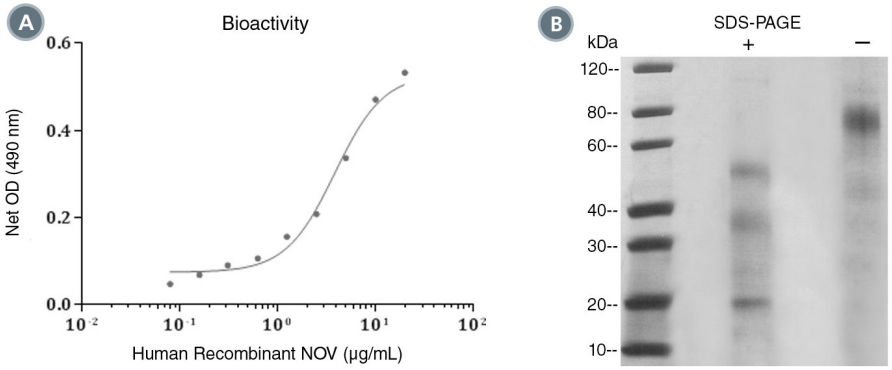
Specifications

Activity:	The specific activity is ≥ 2.0 x 10^2 units/mg (EC50 ≤ 5 µg/mL) as determined by a cell proliferation assay using 3T3 cells.
Purity:	≥ 95%
Endotoxin Level:	Measured by kinetic Limulus amebocyte lysate (LAL) analysis and is ≤ 0.2 EU/µg protein.

Preparation and Storage

Storage:	Store at -80°C.
Stability:	Stable as supplied for 12 months from date of receipt.
Preparation:	Centrifuge vial before opening. Reconstitute the product in sterile water to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. As a general guide, do not store at 2 - 8°C for more than 1 week or at -20°C for more than 2 months. Avoid repeated freeze-thaw cycles.

Data



(A) The biological activity of Human Recombinant NOV was tested by its ability to promote the proliferation of 3T3 cells. Cell proliferation was measured using a fluorometric assay method. The EC50 is defined as the effective concentration of the protein at which cell proliferation is at 50% of maximum. The EC50 in the example above is less than 5 µg/mL.
(B) 2 µg of Human Recombinant NOV was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant NOV has a predicted molecular mass of 35.7 kDa.

Related Products

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References

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