Canine CCN3 / NOV Protein (His Tag)

Catalog Number: **70043-D08H**

General Information

Gene Name Synonym:

NOV

Protein Construction:

A DNA sequence encoding the canine NOV(XP_532317.3) (Met1-Met353) was expressed with a C-terminal polyhistidine tag.

Source: Canine

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Gln 29

Molecular Mass:

The recombinant canine NOV comprises 336 amino acids and has a predicted molecular mass of 36.9 kDa. The apparent molecular mass of the protein is approximately 40-47 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

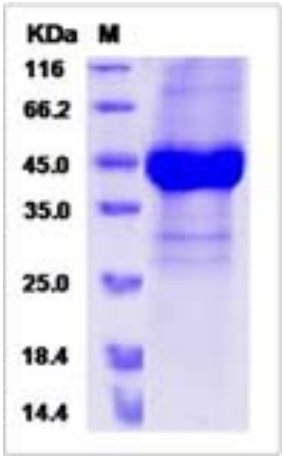
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Protein NOV homolog, also known as Nephroblastoma-overexpressed gene protein homolog, NOV, and CCN3, is a putative ligand for integrin receptors, is tightly associated with the extracellular matrix and mediates diverse cellular functions, including cell adhesion and proliferation. CCN3 has been shown to negatively regulate growth although it promotes migration in a cell type-specific manner. This secreted protein belongs to the CCN family, and its expression was observed in a broad variety of tissues from the early stage of development , and altered expression of CCN3 has been observed in a variety of tumors, including hepatocellular carcinomas, Wilm's tumors, Ewing's sarcomas, gliomas, rhabdomyosarcomas, and adrenocortical carcinomas. Mature CCN3 protein has five distinct modules and truncated protein variants with altered function are found in many cancers. CCN3 acts through the core stem cell signalling pathways including Notch and Bone Morphogenic Protein, connecting CCN3 with the modulation of self-renewal and maturation of a number of cell lineages including hematopoietic, osteogenic and chondrogenic. CCN3 may affect the extracellular environment of the niche for hematopoietic stem cells. CCN3 has emerged as a key player in stem cell regulation, hematopoiesis and a crucial component within the bone marrow microenvironment.

References

1.Manara MC, *et al.* (2002) The expression of ccn3(nov) gene in musculoskeletal tumors. Am J Pathol. 160(3): 849-59. 2.Lin CG, *et al.* (2003) CCN3 (NOV) is a novel angiogenic regulator of the CCN protein family. J Biol Chem. 278(26): 24200-8. 3.Vallacchi V, *et al.* (2009) CCN3/nephroblastoma overexpressed matricellular protein regulates integrin expression, adhesion, and dissemination in melanoma. Cancer Res. 68(3): 715-23.