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Datasheet for ABIN3135588

NOV Protein (AA 22-354) (His tag)

1 Image

Overview

Quantity:	1 mg
Target:	NOV
Protein Characteristics:	AA 22-354
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NOV protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence: QVSASLRCPs RCPPKCPsIS PTCAPGVRSV LDGCSCCPVC ARQRGESCSE MRPCDQSSGL
YCDRSADPNN QTGICMVPEG DNCVFDGVIY RNGEKFEPNC QYFCTCRDGG IGCLPRCQLD
VLLPGPD CPA PRKVA VPGEC CEKWTCGSDE QGTQGT LGG L ALPAYRPEAT VGVEVSDSSI
NCIEQTTEWS ACSKSCGMGV STRVTNRNRQ CEMVKQTRLC IVRPCEQEPE EVTDKKGKKC
LRTKSLKAI HLQFENCTSL YTYKPRFCGV CSDGRCCTPH NTKTIQVEFQ CLPGEIHKP
VMVIGTCTCY SNCPQNNEAF LQDLELKTSR GEI

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
 - Mouse Nov Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
 - State-of-the-art algorithm used for plasmid design (Gene synthesis).

Product Details

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	NOV
Alternative Name:	Nov (NOV Products)
Background:	Immediate-early protein playing a role in various cellular processes including proliferation,

Target Details

adhesion, migration, differentiation and survival. Acts by binding to integrins or membrane receptors such as NOTCH1. Essential regulator of hematopoietic stem and progenitor cell function. Inhibits myogenic differentiation through the activation of Notch-signaling pathway. Inhibits vascular smooth muscle cells proliferation by increasing expression of cell-cycle regulators such as CDKN2B or CDKN1A independently of TGFB1 signaling. Ligand of integrins ITGAV:ITGB3 and ITGA5:ITGB1, acts directly upon endothelial cells to stimulate pro-angiogenic activities and induces angiogenesis. In endothelial cells, supports cell adhesion, induces directed cell migration (chemotaxis) and promotes cell survival. Plays also a role in cutaneous wound healing acting as integrin receptor ligand. Supports skin fibroblast adhesion through ITGA5:ITGB1 and ITGA6:ITGB1 and induces fibroblast chemotaxis through ITGAV:ITGB5. Seems to enhance bFGF-induced DNA synthesis in fibroblasts (By similarity). Involved in bone regeneration as a negative regulator (PubMed:23653360). Enhances the articular chondrocytic phenotype, whereas it repressed the one representing endochondral ossification (By similarity). Impairs pancreatic beta-cell function, inhibits beta-cell proliferation and insulin secretion (PubMed:23705021). Plays a role as negative regulator of endothelial pro-inflammatory activation reducing monocyte adhesion, its anti-inflammatory effects occur secondary to the inhibition of NF-kappaB signaling pathway (By similarity). Contributes to the control and coordination of inflammatory processes in atherosclerosis (PubMed:24722330). Attenuates inflammatory pain through regulation of IL1B- and TNF-induced MMP9, MMP2 and CCL2 expression. Inhibits MMP9 expression through ITGB1 engagement (By similarity).

{ECO:0000250|UniProtKB:P48745, ECO:0000250|UniProtKB:Q9QZQ5, ECO:0000269|PubMed:23653360, ECO:0000269|PubMed:23705021, ECO:0000269|PubMed:24722330}.

Molecular Weight: 37.4 kDa Including tag.

UniProt: [Q64299](#)

Pathways: [Smooth Muscle Cell Migration, Growth Factor Binding](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible

Application Details

options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process