

Datasheet for ABIN3094038

## NEDD4 Protein (AA 1-1319) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	NEDD4
Protein Characteristics:	AA 1-1319
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NEDD4 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

### Product Details

Brand:	AliCE®
Sequence:	<p>MAQSLRLHFA ARRSNTYPLS ETSGDDLDSH VHMCFKRPTR ISTSNVVQMK LTPRQTALAP</p> <p>LIKENVQSQE RSSVPSSENV NKKSSCLQIS LQPTRYSGYL QSSNVLADSD DASFTCILKD</p> <p>GIYSSAVVDN ELNAVNDGHL VSSPAICSGS LSNFSTSDNG SYSSNGSDFG SCASITSGGS</p> <p>YTNSVISDSS SYTFPPSDDT FLGGNLPDS TSNRSVPNRN TTPCEIFSRS TSTDPFVQDD</p> <p>LEHGLEIMKL PVS RNTKIPL KRYSSLVIFP RSPSTTRPTS P TSLCTLLSK GSYQTSHQFI</p> <p>ISPSEIAHNE DG TSAKGFLS TAVNGLRLSK TICTPGEVRD IRPLHRKGSL QKKIVLSNNT</p> <p>PRQTVCEKSS EGYSCVSVHF TQRKAATLDC ETTNGDCKPE MSEIKLNSDS EYIKLMHRTS</p> <p>ACLPSSQNVD CQININGELE RPHSQMNKNH GILRRSISLG GAYPNISCLS SLKHNC SKGG</p> <p>PSQLLIK FAS GNEGKVDNLS RDSNRDCTNE LSNSCKTRDD FLGQVDVPLY PLPTENPRLE</p> <p>RPYTFKDFVL HPRSHKSRVK GYLRLKMTYL PKTSGSEDDN AEQAELEPG WVLDPQPDAA</p> <p>CHLQQQQEPS PLPPGWEERQ DILGRYYVN HESRRTQWKR PTPQDNLTDA ENGNIQLQAAQ</p>

RAFTTRRQIS EETESVDNRE SSENWEIIRE DEATMYSNQA FPSPPPSSNL DVPTHLAEEL  
NARLTIFGNS AVSQPASSSN HSSRRGSLQA YTFEEQPTLP VLLPTSSGLP PGWEEKQDER  
GRSYYVDHNS RTTTWTKPTV QATVETSQLT SSQSSAGPQS QASTSDSGQQ VTQPSEIEQG  
FLPKGWEVRH APNGRPFFID HNTKTTTWED PRLKIPAHLR GKTSLDTSND LGPLPPGWEE  
RTHTDGRIFY INHNIKRTQW EDPRLENVAI TGPAVPYSRD YKRKYEFFRR KLKKQNDIPN  
KFEMKLRRAT VLEDSYRRIM GVKRADFLKA RLWIEFDGEK GLDYGGVARE WFFLISKEMF  
NPYYGLFEYS ATDNYTLQIN PNSGLCNEDH LSYFKFIGRV AGMAVYHGKL LDGFFIRPFY  
KMMLHKPITL HDMESVDSEY YNSLRWILEN DPTELDLRFI IDEELFGQTH QHELKNGGSE  
IVVTNKNKKE YIYLVQWRF VNRIQKQMAA FKEGFFELIP QDLIKIFDEN ELELLMCGLG  
DVDVNDWREH TKYKNGYSAN HQVIQWFWKA VLMMMDSEKRI RLLQFVTGTS RVPMNGFAEL  
YGSNGPQSFT VEQWGTPEKL PRAHTCFNRL DLPPYESFEE LWDKLQMAIE NTQGFDGVD

**Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

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

#### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system -

## Product Details

all that's needed is the DNA that codes for the desired protein!

### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
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Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
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Grade:	custom-made
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## Target Details

Target:	NEDD4
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Alternative Name:	NEDD4 ( <a href="#">NEDD4 Products</a> )
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Background:	<p>E3 ubiquitin-protein ligase NEDD4 (EC 2.3.2.26) (Cell proliferation-inducing gene 53 protein) (HECT-type E3 ubiquitin transferase NEDD4) (Neural precursor cell expressed developmentally down-regulated protein 4) (NEDD-4),FUNCTION: E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. Specifically ubiquitinates 'Lys-63' in target proteins (PubMed:23644597, PubMed:21399620, PubMed:19920177). Involved in the pathway leading to the degradation of VEGFR-2/KDFFR, independently of its ubiquitin-ligase activity. Monoubiquitinates IGF1R at multiple sites, thus leading to receptor internalization and degradation in lysosomes (By similarity). Ubiquitinates FGFR1, leading to receptor internalization and degradation in lysosomes (PubMed:21765395). Promotes ubiquitination of RAPGEF2 (PubMed:11598133). According to PubMed:18562292 the direct link between NEDD4 and PTEN regulation through polyubiquitination described in PubMed:17218260 is questionable. Involved in ubiquitination of ERBB4 intracellular domain E4ICD (By similarity). Part of a signaling complex composed of NEDD4, RAP2A and TNK1 which regulates neuronal dendrite extension and arborization during development (By similarity). Ubiquitinates TNK2 and regulates EGF-induced degradation of EGFR and TNF2 (PubMed:20086093). Ubiquitinates BRAT1 and this ubiquitination is enhanced in the presence of NDFIP1 (PubMed:25631046). Ubiquitinates DAZAP2, leading to its proteasomal degradation (PubMed:11342538).</p>
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## Target Details

Ubiquitinates POLR2A (PubMed:19920177). Functions as a platform to recruit USP13 to form an NEDD4-USP13 deubiquitination complex that plays a critical role in cleaving the 'Lys-48'-linked ubiquitin chains of VPS34 and then stabilizing VPS34, thus promoting the formation of autophagosomes (PubMed:32101753). {ECO:0000250|UniProtKB:P46935, ECO:0000269|PubMed:11342538, ECO:0000269|PubMed:11598133, ECO:0000269|PubMed:17218260, ECO:0000269|PubMed:18562292, ECO:0000269|PubMed:21399620, ECO:0000269|PubMed:21765395, ECO:0000269|PubMed:23644597, ECO:0000269|PubMed:25631046, ECO:0000269|PubMed:32101753}., FUNCTION: (Microbial infection) Involved in the ubiquitination of Ebola virus protein VP40 which plays a role in viral budding. {ECO:0000269|PubMed:12559917, ECO:0000269|PubMed:18305167}.

Molecular Weight:	149.1 kDa
UniProt:	<a href="#">P46934</a>
Pathways:	<a href="#">Notch Signaling</a> , <a href="#">Intracellular Steroid Hormone Receptor Signaling Pathway</a> , <a href="#">Skeletal Muscle Fiber Development</a> , <a href="#">Signaling Events mediated by VEGFR1 and VEGFR2</a>

## 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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!</p>
Restrictions:	For Research Use only

## Handling

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Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months