

Datasheet for ABIN3091817
NCAPD3 Protein (AA 1-1498) (Strep Tag)



[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	NCAPD3
Protein Characteristics:	AA 1-1498
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NCAPD3 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	<p>MVALRGLGSG LQPWCPLDLR LEWVDTVWEL DFTETEPLDP SIEAEIITG LAAFTKLYES LLPFATGEHG SMESIWTFFI ENNVSHSTLV ALFYHFVQIV HKKNVSVQYR EYGLHAAGLY FLLLEVPGSV ANQVFHPVMF DKCIQTLKKS WPQESNLNRK RKKEQPKSSQ ANPGRHRKRG KPPREDIEM DEIIIEQEDE NICFSARDLS QIRNAIFHLL KNFLRLLPKF SLKEKPQCQV NCIEFVSLT NFEPVLHECH VTQARALNQA KYIPELAYYG LYLLCSPIHG EGDKVISCVF HQMLSVILML EVGEGSHRAP LAVTSQVINC RNQAVQFISA LVDELKESIF PVVRILLQHI CAKVVDKSEY RTFAAQLVQ LLSKLPCGEY AMFIAWLYKY SRSSKIPHRV FTLDVVLALL ELPEREVDNT LSLEHQKFLK HKFLVQEIMF DRCLDKAPT VRSKALSSFAH CLELTVTSAS ESILELLINS PTFSVIESHP GTLLRNSSAF SYQRQTSNRS EPSGEINIDS SGETVGSGER CVMAMLRRI RDEKTNVRKS ALQVLVSILK HCDVSGMKED LWILQDQCRD PAVSVRKQAL QSLTELLMAQ PRCVQIQKAW LRGVVPVMD CESTVQEKAL EFLDQLLLQN IRHSHFHSG DDSQVLAWAL LTLTTESQE LSRYLNKAFH IWSKKEKFSP TFINNVISHT GTEHSAPAWM</p>
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LLSKIAGSSP RLDYSRIIQS WEKISSQQNP NSNTLGHILC VIGHIAKHLP KSTRDKVTD
VKCKLNGFQW SLEVISSAVD ALQRLCRASA ETPAEEQELL TQVCGDVLST CEHRLSNIVL
KENGTMNDDE DLLVKYIFTL GDIAQLCPAR VEKRIFLLIQ SVLASSADAD HSPSSQGSSE
APASQPPPQV RGSVMPSVIR AHAIITLGKL CLQHEDLAKK SIPALVRELE VCEDVAVRNN
VIIVMCDLCI RYTIMVDKYI PNISMCLKDS DPFIRKQTLI LLTNLLQEEF VKWKGSLLFFR
FVSTLIDSHV DIASFGEFCL AHLLLKRNPV MFFQHIECI FHFNNYEKHE KYNKFPQSER
EKRLFSLKGG SNKERRMKIY KFLLEHFTDE QRFNITSKIC LSILACFADG ILPLDLASE
LLSDTFEVLS SKEIKLLAMR SKPDKDLLME EDDMALANVV MQEAQKKLIS QVQKRNFIE
IPIIISLKT VLEKNKIPAL RELMHYLRV MQDYRDELKD FFAVDKQLAS ELEYDMKKYQ
EQLVQEQLA KHADVAGTAG GAEVAPVAQV ALCLETVPVP AGQENPAMSP AVSQPCTPRA
SAGHVAVSSP TPETGPLQRL LPKARPMSLS TIALNSVKK AVESKSRHRS RSLGVLPTL
NSGSPEKTCS QVSSYSLEQE SNGEIEHVTK RAISTPEKSI SDVTFGAGVS YIGTPRTPSS
AKEKIEGRSQ GNDILCLSLP DKPPPQPPQW NVRSRPNKD TPACSRRLR KTPLKTAN

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.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- 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 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.

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

Product Details

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!

Concentration:

- 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.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	NCAPD3
Alternative Name:	NCAPD3 (NCAPD3 Products)
Background:	Condensin-2 complex subunit D3 (Non-SMC condensin II complex subunit D3) (hCAP-D3),FUNCTION: Regulatory subunit of the condensin-2 complex, a complex which establishes mitotic chromosome architecture and is involved in physical rigidity of the chromatid axis (PubMed:14532007). May promote the resolution of double-strand DNA catenanes (intertwines) between sister chromatids. Condensin-mediated compaction likely increases tension in catenated sister chromatids, providing directionality for type II topoisomerase-mediated strand exchanges toward chromatid decatenation. Specifically required for decatenation of centromeric ultrafine DNA bridges during anaphase. Early in neurogenesis, may

Target Details

play an essential role to ensure accurate mitotic chromosome condensation in neuron stem cells, ultimately affecting neuron pool and cortex size (PubMed:27737959).
{ECO:0000269|PubMed:14532007, ECO:0000269|PubMed:27737959}.

Molecular Weight: 168.9 kDa

UniProt: [P42695](#)

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

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)



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