

Datasheet for ABIN3091454

CDK5RAP3 Protein (AA 1-506) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	CDK5RAP3
Protein Characteristics:	AA 1-506
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CDK5RAP3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MEDHQHPID IQTSKLLDWL VDRRHCSLKW QSLVLTIREK INAAIQDMPE SEEIAQLLSG
SYIHYFHCLR ILDLLKGTEA STKNIFGRYS SQRMKDWQEI IALYEKNTY LVELSSLLVR
NVNYEIPSLK KQIAKCQQLQ QEYSRKEEEC QAGAAEMREQ FYHSCKQYGI TGENVRGELL
ALVKDLPSQL AEIGAAAQQS LGEAIDVYQA SVGFVCESPT EQVLPMLRFV QKRGNSTVYE
WRTGTEPSVV ERPHLEELPE QVAEDAIDWG DFGVEAVSEG TDSGISAEAA GIDWGIFPES
DSKDPGGDGI DWGDDAVALQ ITVLEAGTQA PEGVARGPDA LTLLEYTETR NQFLDELMEL
EIFLAQRAVE LSEEADVLSV SQFQLAPAIL QGQTKEKMVT MVSVLEDLIG KLTSLQLQHL
FMILASPRYV DRVTEFLQQK LKQSQLLALK KELMVQKQQE ALEEQAALP KLDLLLEKTK
ELQKLIADI SKRYSGRPVN LMGTSL

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 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®):

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

Product Details

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:	CDK5RAP3
Alternative Name:	CDK5RAP3 (CDK5RAP3 Products)
Background:	<p>CDK5 regulatory subunit-associated protein 3 (CDK5 activator-binding protein C53) (LXXLL/leucine-zipper-containing ARF-binding protein) (Protein HSF-27),FUNCTION: Substrate adapter for ufmylation, the covalent attachment of the ubiquitin-like modifier UFM1 to substrate proteins, in response to endoplasmic reticulum stress (PubMed:23152784, PubMed:30635284). Negatively regulates NF-kappa-B-mediated gene transcription through the control of RELA phosphorylation (PubMed:17785205, PubMed:20228063). Probable tumor suppressor initially identified as a CDK5R1 interactor controlling cell proliferation (PubMed:12054757, PubMed:12737517). Also regulates mitotic G2/M transition checkpoint and mitotic G2 DNA damage checkpoint (PubMed:15790566, PubMed:19223857). Through its interaction with CDKN2A/ARF and MDM2 may induce MDM2-dependent p53/TP53 ubiquitination, stabilization and activation in the nucleus, thereby promoting G1 cell cycle arrest and inhibition of cell proliferation (PubMed:16173922). May also play a role in the rupture of the nuclear envelope during apoptosis (PubMed:23478299). May regulate MAPK14 activity by regulating its dephosphorylation by PPM1D/WIP1 (PubMed:21283629). Required for liver development (By similarity). {ECO:0000250 UniProtKB:Q99LM2, ECO:0000269 PubMed:12054757, ECO:0000269 PubMed:12737517, ECO:0000269 PubMed:15790566, ECO:0000269 PubMed:16173922, ECO:0000269 PubMed:17785205, ECO:0000269 PubMed:19223857, ECO:0000269 PubMed:20228063, ECO:0000269 PubMed:21283629, ECO:0000269 PubMed:23152784, ECO:0000269 PubMed:23478299, ECO:0000269 PubMed:30635284}., FUNCTION: (Microbial infection) May be negatively regulated by hepatitis B virus large envelope protein mutant pre-s2 to promote mitotic entry. {ECO:0000269 PubMed:21971960}.</p>
Molecular Weight:	56.9 kDa
UniProt:	Q96JB5

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.
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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>
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Restrictions:	For Research Use only
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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