

Datasheet for ABIN3094205
NPAT Protein (AA 1-1427) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	NPAT
Protein Characteristics:	AA 1-1427
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NPAT protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MLLPSDVARL VLGYLQQENL ISTCQTFILE SSDLKEYAEH CTDEGFIPAC LLSLFGKNLT
TILNEYVAMK TKETSNNVPA IMSSLWKKLD HTLSQIRSMQ SSPRFAGSQR ARTRTGIAEI
KRQRKLASQT APASAELLTL PYLSGQFTTP PSTGTQVTRP SGQISDPSRS YFVVVNHSQS
QDTVTTGEAL NVIPGAQEKK AHASLMSPGR RKSESQRKST TLSGPHSTIR NFQDPNAFAV
EKQMVIENAR EKILSNKSLQ EKLAENINKF LTSDNNTIAQV PKQTDNNPTE PETSIDEFLG
LPSEIHMSEE AIQDILEQTE SDPAFQALFD LFDYGKTKNN KNISQSISSQ PMESNPSIVL
ADETNLAVKG SFETEESDQG SGQPAFACTSY QNDDPLNALK NSNNHDVLRQ EDQENFSQIS
TSIQKKAFKT AVPTQKCDI DITFESVPLN NDFNQRGNSN AECNPHCAEL YTNQMSTETE
MAIGIEKNSL SSNVPSESQL QPDQPDIPIT SFVSLGCEAN NENLILSGKS SLLSQDTSL
TGKPSKKSQF CENSNDTVKL KINFHGSKSS DSSEVHYSKI EINVLEPVMS QLSNCQDNCS
LQSEILPVSV ESSHLNVSGQ VEIHLGDSLS STKQPSNDSA SVELNHTENE AQASKSENSQ
EPSSSVKEEN TIFLSLGGNA NCEKVALTPP EGTPVENSHS LPPEVCSSV GDSHPESQNT

DDKPSSNNSA EIDASNIVSL KVIISDDPFV SSDELTSVAV SSINGENLPT IILSSPTKSP
TKNAELVKCL SSEETVGAVV YAEVGDASAM EQLLTFKSE DSAVNNTQNE DGIAFSANVT
PCVSKDGGYI QLMPATSTAF GNSNNILIAT CVTDPTALGT SVSQSNVVVL PGNSAPMTAQ
PLPPQLQTPP RSNSVFAVNQ AVSPNFSQGS AIIIASPVQP VLQGMVGMIP VSVVVGQNGNN
FSTPPRQVLH MPLTAPVCNR SIPQFPVPPK SQKAQGLRNK PCIGKQVNNL VDSSGHSVGC
HAQKTEVSDK SIATDLGKKS EETTVPFPEE SIVPAAKPCH RRVLCFDSTT APVANTQGPN
HKMVSQNKER NAVSFPNLDS PNVSSTLKPP SNNAIKREKE KPPLPKILSK SESAISRHTT
IRETQSEKKV SPTEIVLESF HKATANKENE LCSDVERQKN PENSKLSIGQ QNGGLRSEKS
IASLQEMTKK QGTSSNNKNV LSVGTAVKDL KQEQTKSASS LITTEMLQDI QRHSSVSRLA
DSSDLPVVRT PGSGAGEKHK EEPIDIIPKAP SSRRFSEDSS TSKVMVPPVT PDLPACSPAS
ETGSENSVNM AAHTLMILSR AAISRTTSAT PLKDNTQQFR ASSRSTTKKR KIEELDERER
NSRPSSKNLT NSSIPMKKKK IKKKKLPSSF PAGMDVDKFL LSLHYDE

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

Product Details

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:	NPAT
Alternative Name:	NPAT (NPAT Products)
Background:	Protein NPAT (Nuclear protein of the ataxia telangiectasia mutated locus) (Nuclear protein of the ATM locus) (p220),FUNCTION: Required for progression through the G1 and S phases of the cell cycle and for S phase entry. Activates transcription of the histone H2A, histone H2B, histone H3 and histone H4 genes in conjunction with MIZF. Also positively regulates the ATM, MIZF and PRKDC promoters. Transcriptional activation may be accomplished at least in part by the recruitment of the NuA4 histone acetyltransferase (HAT) complex to target gene promoters. {ECO:0000269 PubMed:10995386, ECO:0000269 PubMed:10995387, ECO:0000269 PubMed:12665581, ECO:0000269 PubMed:12724424, ECO:0000269 PubMed:14585971, ECO:0000269 PubMed:14612403, ECO:0000269 PubMed:15555599, ECO:0000269 PubMed:15988025,

Target Details

ECO:0000269|PubMed:16131487, ECO:0000269|PubMed:17163457,
ECO:0000269|PubMed:17826007, ECO:0000269|PubMed:17967892,
ECO:0000269|PubMed:17974976, ECO:0000269|PubMed:9472014}.

Molecular Weight: 154.3 kDa

UniProt: [Q14207](#)

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