Datasheet for ABIN3092745

GEMIN4 Protein (AA 1-1058) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	GEMIN4
Protein Characteristics:	AA 1-1058
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GEMIN4 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MDLGPLNICE EMTILHGGFL LAEQLFHPKA LAELTKSDWE RVGRPIVEAL REISSAAAHS QPFAWKKKAL IIIWAKVLQP HPVTPSDTET RWQEDLFFSV GNMIPTINHT ILFELLKSLE ASGLFIQLLM ALPTTICHAE LERFLEHVTV DTSAEDVAFF LDVWWEVMKH KGHPQDPLLS QFSAMAHKYL PALDEFPHPP KRLRSDPDAC PTMPLLAMLL RGLTQIQSRI LGPGRKCCAL ANLADMLTVF ALTEDDPQEV SATVYLDKLA TVISVWNSDT QNPYHQQALA EKVKEAERDV SLTSLAKLPS ETIFVGCEFL HHLLREWGEE LQAVLRSSQG TSYDSYRLCD SLTSFSQNAT LYLNRTSLSK EDRQVVSELA ECVRDFLRKT STVLKNRALE DITASIAMAV IQQKMDRHME VCYIFASEKK WAFSDEWVAC LGSNRALFRQ PDLVLRLLET VIDVSTADRA IPESQIRQVI HLILECYADL SLPGKNKVLA GILRSWGRKG LSEKLLAYVE GFQEDLNTTF NQLTQSASEQ GLAKAVASVA RLVIVHPEVT VKKMCSLAVV NLGTHKFLAQ ILTAFPALRF VEEQGPNSSA TFMVSCLKET VWMKFSTPKE EKQFLELLNC LMSPVKPQGI PVAALLEPDE VLKEFVLPFL RLDVEEVDLS LRIFIQTLEA NACREEYWLQ TCSPFPLLFS LCQLLDRFSK YWQLPKEKRC

LSLDRKDLAI HILELLCEIV SANAETFSPD VWIKSLSWLH RKLEQLDWTV GLRLKSFFEG HFKCEVPATL FEICKLSEDE WTSQAHPGYG AGTGLLAWME CCCVSSGISE RMLSLLVVDV GNPEEVRLFS KGFLVALVQV MPWCSPQEWQ RLHQLTRRLL EKQLLHVPYS LEYIQFVPLL NLKPFAQELQ LSVLFLRTFQ FLCSHSCRDW LPLEGWNHVV KLLCGSLTRL LDSVRAIQAA GPWVQGPEQD LTQEALFVYT QVFCHALHIM AMLHPEVCEP LYVLALETLT CYETLSKTNP SVSSLLQRAH EQRFLKSIAE GIGPEERRQT LLQKMSSF

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.

Product Details

	• 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 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:	GEMIN4
Alternative Name:	GEMIN4 (GEMIN4 Products)
Background:	Gem-associated protein 4 (Gemin-4) (Component of gems 4) (p97),FUNCTION: The SMN complex catalyzes the assembly of small nuclear ribonucleoproteins (snRNPs), the building blocks of the spliceosome, and thereby plays an important role in the splicing of cellular pre-mRNAs. Most spliceosomal snRNPs contain a common set of Sm proteins SNRPB, SNRPD1, SNRPD2, SNRPD3, SNRPE, SNRPF and SNRPG that assemble in a heptameric protein ring on the Sm site of the small nuclear RNA to form the core snRNP (Sm core). In the cytosol, the Sm proteins SNRPD1, SNRPD2, SNRPE, SNRPF and SNRPG are trapped in an inactive 6S pICln-Sm complex by the chaperone CLNS1A that controls the assembly of the core snRNP. To assemble core snRNPs, the SMN complex accepts the trapped 5Sm proteins from CLNS1A forming an intermediate. Binding of snRNA inside 5Sm triggers eviction of the SMN complex, thereby allowing binding of SNRPD3 and SNRPB to complete assembly of the core snRNP. {ECO:0000269|PubMed:18984161}.
Molecular Weight:	120.0 kDa
UniProt:	P57678
Pathways:	Ribonucleoprotein Complex Subunit Organization

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