Datasheet for ABIN3093123

EIF4G1 Protein (AA 1-1599) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	EIF4G1
Protein Characteristics:	AA 1-1599
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This EIF4G1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MNKAPQSTGP PPAPSPGLPQ PAFPPGQTAP VVFSTPQATQ MNTPSQPRQH FYPSRAQPPS SAASRVQSAA PARPGPAAHV YPAGSQVMMI PSQISYPASQ GAYYIPGQGR STYVVPTQQY PVQPGAPGFY PGASPTEFGT YAGAYYPAQG VQQFPTGVAP TPVLMNQPPQ IAPKRERKTI RIRDPNQGGK DITEEIMSGA RTASTPTPPQ TGGGLEPQAN GETPQVAVIV RPDDRSQGAI IADRPGLPGP EHSPSESQPS SPSPTPSPSP VLEPGSEPNL AVLSIPGDTM TTIQMSVEES TPISRETGEP YRLSPEPTPL AEPILEVEVT LSKPVPESEF SSSPLQAPTP LASHTVEIHE PNGMVPSEDL EPEVESSPEL APPPACPSES PVPIAPTAQP EELLNGAPSP PAVDLSPVSE PEEQAKEVTA SMAPPTIPSA TPATAPSATS PAQEEEMEEE EEEEEGEAGE AGEAESEKGG EELLPPESTP IPANLSQNLE AAAATQVAVS VPKRRRKIKE LNKKEAVGDL LDAFKEANPA VPEVENQPPA GSNPGPESEG SGVPPRPEEA DETWDSKEDK IHNAENIQPG EQKYEYKSDQ WKPLNLEEKK RYDREFLLGF QFIFASMQKP EGLPHISDVV LDKANKTPLR PLDPTRLQGI NCGPDFTPSF ANLGRTTLST RGPPRGGPGG ELPRGPAGLG PRRSQQGPRK EPRKIIATVL

MTEDIKLNKA EKAWKPSSKR TAADKDRGEE DADGSKTQDL FRRVRSILNK LTPQMFQQLM KQVTQLAIDT EERLKGVIDL IFEKAISEPN FSVAYANMCR CLMALKVPTT EKPTVTVNFR KLLLNRCQKE FEKDKDDDEV FEKKQKEMDE AATAEERGRL KEELEEARDI ARRRSLGNIK FIGELFKLKM LTEAIMHDCV VKLLKNHDEE SLECLCRLLT TIGKDLDFEK AKPRMDQYFN QMEKIIKEKK TSSRIRFMLQ DVLDLRGSNW VPRRGDQGPK TIDQIHKEAE MEEHREHIKV QQLMAKGSDK RRGGPPGPPI SRGLPLVDDG GWNTVPISKG SRPIDTSRLT KITKPGSIDS NNQLFAPGGR LSWGKGSSGG SGAKPSDAAS EAARPATSTL NRFSALQQAV PTESTDNRRV VQRSSLSRER GEKAGDRGDR LERSERGGDR GDRLDRARTP ATKRSFSKEV EERSRERPSQ PEGLRKAASL TEDRDRGRDA VKREAALPPV SPLKAALSEE ELEKKSKAII EEYLHLNDMK EAVQCVQELA SPSLLFIFVR HGVESTLERS AIAREHMGQL LHQLLCAGHL STAQYYQGLY EILELAEDME IDIPHVWLYL AELVTPILQE GGVPMGELFR EITKPLRPLG KAASLLLEIL GLLCKSMGPK KVGTLWREAG LSWKEFLPEG QDIGAFVAEQ KVEYTLGEES EAPGQRALPS EELNRQLEKL LKEGSSNQRV FDWIEANLSE QQIVSNTLVR ALMTAVCYSA IIFETPLRVD VAVLKARAKL LQKYLCDEQK ELQALYALQA LVVTLEQPPN LLRMFFDALY DEDVVKEDAF YSWESSKDPA EQQGKGVALK SVTAFFKWLR EAEEESDHN

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-

Product Details

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 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:	EIF4G1
Alternative Name:	EIF4G1 (EIF4G1 Products)
Background:	Eukaryotic translation initiation factor 4 gamma 1 (eIF-4-gamma 1) (eIF-4G 1) (eIF-4G1) (p220),FUNCTION: Component of the protein complex eIF4F, which is involved in the recognition of the mRNA cap, ATP-dependent unwinding of 5'-terminal secondary structure and recruitment of mRNA to the ribosome (PubMed:29987188). Exists in two complexes, either with EIF1 or with EIF4E (mutually exclusive) (PubMed:29987188). Together with EIF1, is required for leaky scanning, in particular for avoiding cap-proximal start codon (PubMed:29987188). Together with EIF4E, antagonizes the scanning promoted by EIF1-EIF4G1 and locates the start

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	codon (through a TISU element) without scanning (PubMed:29987188). As a member of the eIF4F complex, required for endoplasmic reticulum stress-induced ATF4 mRNA translation (PubMed:29062139). {ECO:0000269|PubMed:29062139, ECO:0000269|PubMed:29987188}.
Molecular Weight:	175.5 kDa
UniProt:	Q04637

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

