

Datasheet for ABIN3135978

FNIP2 Protein (AA 1-1108) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	FNIP2
Protein Characteristics:	AA 1-1108
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FNIP2 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	<p>MAPTLLQKLF NKRGGGAASA QARPPKEEPA FSWSCSEFGL SDIRLLVYQD CERRGRQVMF</p> <p>DSRAVQKMEE AAAQKAEDVP IKMSARCCQE SSSSSGSSSS GSSSSHGFGG SLQHAKQQLP</p> <p>KYQYTRPASD VSMLGEMMFG SVAMSYKGST LKIH YIRSPQ QLMISKVFSA TMGSFCGSTN</p> <p>NLQDSFEYIN QDPQAGKLNT NQYNLGPFR T GSNLAHSTPV DMPSRGQNE D RDSGIARSAS</p> <p>LSSLLITFPF SPSSSTSSSS SYQRRWLR SQ TTSLENGIFP RRSTDET FSL AEETCSSNPA</p> <p>MVRRKKIAIS IIFSLCEREA AQRDFQDFFF SHFPLFESHM NRLKGAIEKA MISCRKISES</p> <p>SLRVQFYVSR LMEALGEFRG TIWNLYSVPR IAEPVWLTMM SNTLEKNQLC QRFLKEFILL</p> <p>IEQVNKNQFF AALLTAVLTY HLAWVPTVMP VDHPPKAFS EKRTSQSVNM LAKTHPYNPL</p> <p>WAQLGDLYGA IGSPVRLTRT VVIGKQKDLV QRILYVLTYF LRCSELQENQ LSWSGNPSED</p> <p>DQVINGSKII TALEKGEVEE SEYVVVTVSS EPALVPPILP QGTAERRSPE PTVVAEISEG</p> <p>VNTSELGHKP EKNRCKRPEQ NSEASSMGFQ EAEPDSSWIP QGIFCEDKQN DQEATQDCSS</p>

SPPSCEVPRV RRRMDQQTLH SKLHGETLKK RAEQSAAWPC PDRHSQEDPP VEKVTFHIGS
SISPESDFES RTKRMEERLK ACGHFHGASA SASSSMDTGL TQEQQSGGCS FKADFEKDIT
PQDHSSGGEG VSEDRGLRAN MTHAVGQLSQ VDGPLAHS LC AAESGRRLLE QTRDVQLKGY
KGPSSEVPVN RCRQQGGLLI AADVPGDAS GKGNYSRSEGD IPRNESLDSA LGDSDDEACV
LALLELGHSC DRTEESLEVE LPLPRSQSTS KANVRNFGRS LLAGYCATYM PDLVLHGTSS
DEKLKQCLAA DLVHTVHHPV LDEPIAEAVC IADTDKWTV QVATSQRKVT DTMKLGQDVL
VSSQVSSLLQ SILQLYKLHL PADFCIMHLE DRLQEMYLKS KMLSEYLRGH TRVHVKELSV
VLGIESNDLP LLTAIASTHS PYVAQILL

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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:

Product Details

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification: One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

Target Details

Target: FNIP2

Alternative Name: Fnip2 ([FNIP2 Products](#))

Background: Folliculin-interacting protein 2 (O6-methylguanine-induced apoptosis 1 protein),FUNCTION: Binding partner of the GTPase-activating protein FLCN: involved in the cellular response to amino acid availability by regulating the non-canonical mTORC1 signaling cascade controlling the MiT/TFE factors TFEB and TFE3 (PubMed:23582324). Required to promote FLCN recruitment to lysosomes and interaction with Rag GTPases, leading to activation of the non-canonical mTORC1 signaling (By similarity). In low-amino acid conditions, component of the lysosomal folliculin complex (LFC) on the membrane of lysosomes, which inhibits the GTPase-activating activity of FLCN, thereby inactivating mTORC1 and promoting nuclear translocation of TFEB and TFE3 (By similarity). Upon amino acid restimulation, disassembly of the LFC complex liberates the GTPase-activating activity of FLCN, leading to activation of mTORC1 and subsequent inactivation of TFEB and TFE3 (By similarity). Together with FLCN, regulates autophagy: following phosphorylation by ULK1, interacts with GABARAP and promotes autophagy (By similarity). In addition to its role in mTORC1 signaling, also acts as a co-chaperone of HSP90AA1/Hsp90: inhibits the ATPase activity of HSP90AA1/Hsp90, leading to activate both kinase and non-kinase client proteins of HSP90AA1/Hsp90 (By similarity). Acts as a scaffold to load client protein FLCN onto HSP90AA1/Hsp90 (By similarity). Competes with the activating co-chaperone AHSA1 for binding to HSP90AA1, thereby providing a reciprocal regulatory mechanism for chaperoning of client proteins (By similarity). May play a role in the signal transduction pathway of apoptosis induced by O6-methylguanine-mispaired lesions (PubMed:19137017). {ECO:0000250|UniProtKB:Q8TF40, ECO:0000250|UniProtKB:Q9P278, ECO:0000269|PubMed:19137017, ECO:0000269|PubMed:23582324}.

Target Details

Molecular Weight: 122.5 kDa

UniProt: [Q80TD3](#)

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.
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months