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Datasheet for ABIN3092551
FIG4 Protein (AA 1-907) (Strep Tag)

Overview

Quantity:	1 mg
Target:	FIG4
Protein Characteristics:	AA 1-907
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FIG4 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MPTAAAPIIS SVQKLVLYET RARYFLVGSN NAETKYRVLK IDRTEPKDLV IIDDRHVYTQ
QEVRELLGRL DLGNRTKMGQ KGSSGLFRAV SAFGVVGFVR FLEGGYIVLI TKRRKMADIG
GHAIYKVEDT NMIYIPNDSV RVTHPDEARY LRIFQNV DLS SNFYFSYSYD LSHSLQYNLT
VLRMPLEMLK SEMTQNRQES FDIFEDEGLI TQGGSGVFGI CSEPYMKYVW NGELLDIIKS
TVHRDWLLYI IHGFCGQSKL LIYGRPVYVT LIARRSSKFA GTRFLKRGAN CEGDVANEVE
TEQILCDASV MSFTAGSYSS YVQVRGSVPL YWSQDISTMM PKPPITLDQA DPFVAHVAALH
FDQMFQRFGS PIIILNLVKE REKRKHERIL SEELVAAVTY LNQLPPEHT IVYIPWDMAK
YTKSKLCNVL DRLNVIAESV VKKTGFFVNR PDSYCSILRP DEKWNELGGC VIPTGRLQTG
ILRTNCVDCL DRTNTAQFMV GKCALAYQLY SLGLIDKPNL QFDTDAVRLF EELYEDHGDT
LSLQYGGSQL VHRVKTYRKI APWTQHSKDI MQTLSRYYSN AFSDADRQDS INFLGVFHP
TEGKPHLWEL PTDFYLH HKN TMRLLPTRRS YTYWWTPEVI KHLPLPYDEV ICAVNLKCLI
VKKFHKYEEE IDIHNEFFRP YELSSFDDTF CLAMTSSARD FMPKTVGIDP SPFTVRKPDE

TGKSVLGNKS NREEAVLQRK TAASAPPPPS EEAIVSSSED DSGTDREEEG SVSQRSTPVK
MTDAGDSAKV TENVVQPMKE LYGINLSDGL SEEDFSIYSR FVQLGQSQHK QDKNSQQPCS
RCSDGVIKLT PISAFSQDNI YEVQPPRVDR KSTEIFQAH I QASQGIMQPL GKEDSSMYRE YIRNRYL

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.

Product Details

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)

Target Details

Target:	FIG4
Alternative Name:	FIG4 (FIG4 Products)
Background:	<p>Polyphosphoinositide phosphatase (EC 3.1.3.-) (EC 3.1.3.36) (EC 3.1.3.86) (Phosphatidylinositol 3,5-bisphosphate 5-phosphatase) (SAC domain-containing protein 3) (Serine-protein phosphatase FIG4) (EC 3.1.3.16),FUNCTION: Dual specificity phosphatase component of the PI(3,5)P2 regulatory complex which regulates both the synthesis and turnover of phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2) (PubMed:17556371, PubMed:33098764). Catalyzes the dephosphorylation of phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2) to form phosphatidylinositol 3-phosphate (PubMed:33098764). Has serine-protein phosphatase activity acting on PIKfyve to stimulate its lipid kinase activity, its catalytically activity being required for maximal PI(3,5)P2 production (PubMed:33098764). In vitro, hydrolyzes all three D5-phosphorylated polyphosphoinositide and although displaying preferences for PtdIns(3,5)P2, it is capable of hydrolyzing PtdIns(3,4,5)P3 and PtdIns(4,5)P2, at least in vitro (PubMed:17556371). {ECO:0000269 PubMed:17556371, ECO:0000269 PubMed:33098764}.</p>
Molecular Weight:	103.6 kDa
UniProt:	Q92562
Pathways:	Inositol Metabolic Process

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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Application Details

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>
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)