Datasheet for ABIN3137242

Espin Protein (ESPN) (AA 1-871) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	Espin (ESPN)
Protein Characteristics:	AA 1-871
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Espin protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MALEQALQAA RRGDLDVLRS LHAAGLLGPS LRDSLDALPV HHAARSGKLH CLRYLVEEVA LPAVSRARNG ATPAHDAAAT GYLSCLQWLL TQGGCRVQEK DNSGATVLHL AARFGHPDVV KWLLYQGGAN SAITTDTGAL PIHYAAAKGD LPSLKLLVGH YPEGVNAQTN NGATPLYLAC QEGHLEVTKY LVQECSADPH LRAQDGMTPL HAAAQMGHNP VLVWLVSFAD VSFSEQDHDG ATAMHFAASR GHTKVLSWLL LHGAEISQDL WGGTPLHDAA ENGELECCQI LAVNGAGLDV RDHDGYTAAD LAEFNGHTHC SRYLRTVQTL SLEHRVLSRD QSMDLEAKQL DSGMSSPNTT MSVQPMTFDL GSPTSTFSNY DSCSSSHSSS KGQRSNRGIP GARAADLQSY MDMLNPEKSL PRGKLGKPSP PPPPPPPPPS FPPPPPPTGT QPPPPPPGYP APNPPVGLHL NNIYMQTKNK LRHVEVDSLK EPKVELNDQF AQPSSGDGHS GLHRQDSGLL RQDSELLHRQ ELLRHSTGLR RQDSDRKQRS FSKQPSTGDY YRQLGRSPGE PLAARPGMAH SEEAALLPGN HVHNGCSADS KASRELPPPP PPPPLPEALS SPPPAPPLPI EGAGAACGQR RSSSSTGKVR VLRHRKSTKS

FNMMSPTGDN SELLAEIKAG KSLKPTPQSK GLTTVFSGSG QPASQPESPQ PLVSPAPSRT RSPTPPASGS QPLLNGSVVP APPATPAPGV HLDVEALIPT LDEQGRPIPE WKRQVMVRKL QQKMQEEEEQ RRKEEEEEAR LASLPAWRRD ILRKKLEEER EQKRKEEERQ KLEEIQRAKE QSEKLRTLGY DEAKLAPWQR QVILKKGEIP K

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:

- 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.

Product Details

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:	Espin (ESPN)
Alternative Name:	Espn (ESPN Products)
Background:	Espin (Ectoplasmic specialization protein),FUNCTION: Multifunctional actin-bundling protein. Plays a major role in regulating the organization, dimension, dynamics and signaling capacities of the actin filament-rich microvilli in the mechanosensory and chemosensory cells (PubMed:14657236, PubMed:15190118). Required for the assembly and stabilization of the stereociliary parallel actin bundles. Plays a crucial role in the formation and maintenance of inner ear hair cell stereocilia (PubMed:21455486). Involved in the elongation of actin in stereocilia (PubMed:19287378, PubMed:22264607). In extrastriolar hair cells, required for targeting MYO3B to stereocilia tips, and for regulation of stereocilia diameter and staircase formation (PubMed:26926603). {ECO:0000269|PubMed:14657236, ECO:0000269|PubMed:15190118, ECO:0000269|PubMed:19287378, ECO:0000269|PubMed:21455486, ECO:0000269|PubMed:22264607, ECO:0000269|PubMed:26926603}.
Molecular Weight:	94.5 kDa
UniProt:	Q9ET47
Pathways:	Sensory Perception of Sound

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.

Application Details

	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