Datasheet for ABIN3092378

EPS8 Protein (AA 1-822) (Strep Tag)

1 Image

Go to Product page

Overview

Quantity:	1 mg
Target:	EPS8
Protein Characteristics:	AA 1-822
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This EPS8 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MNGHISNHPS SFGMYPSQMN GYGSSPTFSQ TDREHGSKTS AKALYEQRKN YARDSVSSVS DISQYRVEHL TTFVLDRKDA MITVDDGIRK LKLLDAKGKV WTQDMILQVD DRAVSLIDLE SKNELENFPL NTIQHCQAVM HSCSYDSVLA LVCKEPTQNK PDLHLFQCDE VKANLISEDI ESAISDSKGG KQKRRPDALR MISNADPSIP PPPRAPAPAP PGTVTQVDVR SRVAAWSAWA ADQGDFEKPR QYHEQEETPE MMAARIDRDV QILNHILDDI EFFITKLQKA AEAFSELSKR KKNKKGKRKG PGEGVLTLRA KPPPPDEFLD CFQKFKHGFN LLAKLKSHIQ NPSAADLVHF LFTPLNMVVQ ATGGPELASS VLSPLLNKDT IDFLNYTVNG DERQLWMSLG GTWMKARAEW PKEQFIPPYV PRFRNGWEPP MLNFMGATME QDLYQLAESV ANVAEHQRKQ EIKRLSTEHS SVSEYHPADG YAFSSNIYTR GSHLDQGEAA VAFKPTSNRH IDRNYEPLKT QPKKYAKSKY DFVARNNSEL SVLKDDILEI LDDRKQWWKV RNASGDSGFV PNNILDIVRP PESGLGRADP PYTHTIQKQR MEYGPRPADT PPAPSPPPTP APVPVPLPPS TPAPVPVSKV PANITRQNSS SSDSGGSIVR DSQRHKQLPV DRRKSQMEEV QDELIHRLTI GRSAAQKKFH VPRQNVPVIN

ITYDSTPEDV KTWLQSKGFN PVTVNSLGVL NGAQLFSLNK DELRTVCPEG ARVYSQITVQ KAALEDSSGS SELQEIMRRR QEKISAAASD SGVESFDEGS SH

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®): 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:	EPS8
Alternative Name:	EPS8 (EPS8 Products)
Background:	Epidermal growth factor receptor kinase substrate 8,FUNCTION: Signaling adapter that controls various cellular protrusions by regulating actin cytoskeleton dynamics and architecture. Depending on its association with other signal transducers, can regulate different processes. Together with SOS1 and ABI1, forms a trimeric complex that participates in transduction of signals from Ras to Rac by activating the Rac-specific guanine nucleotide exchange factor (GEF) activity. Acts as a direct regulator of actin dynamics by binding actin filaments and has both barbed-end actin filament capping and actin bundling activities depending on the context. Displays barbed-end actin capping activity when associated with ABI1, thereby regulating actin-based motility process: capping activity is auto-inhibited and inhibition is relieved upon ABI1 interaction. Also shows actin bundling activity when associated with BAIAP2, enhancing BAIAP2-dependent membrane extensions and promoting filopodial protrusions. Involved in the regulation of processes such as axonal filopodia growth, stereocilia length, dendritic cell migration and cancer cell migration and invasion. Acts as a regulator of axonal filopodia formation in neurons: in the absence of neurotrophic factors, negatively regulates axonal filopodia formation via actin-capping activity. In contrast, it is phosphorylated in the presence of BDNF leading to inhibition of its actin-capping activity and stimulation of filopodia formation. Component of a complex with WHRN and MYO15A that localizes at stereocilia tips and is required for elongation of the stereocilia actin core. Indirectly involved in cell cycle progression, its degradation following ubiquitination being required during G2 phase to promote cell shape changes. {ECO:0000269|PubMed:15558031, ECO:0000269|PubMed:17115031}.

Target Details

Molecular Weight:	91.9 kDa
UniProt:	Q12929
Pathways:	EGFR Signaling Pathway, Regulation of Actin Filament Polymerization

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)

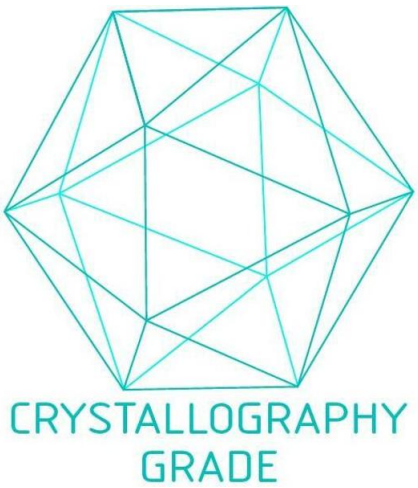

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process