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Datasheet for ABIN3094377

PASK Protein (AA 1-1323) (Strep Tag)

Overview

Quantity:	1 mg
Target:	PASK
Protein Characteristics:	AA 1-1323
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PASK protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MEDGGLTAFE EDQRCLSQSL PLPVSAEGPA AQTTAEPSRS FSSAHRHLSR RNGLSRLCQS
RTALSEDRWS SYCLSSLAAQ NICTSKLHCP AAPEHTDPSE PRGSVSCCSL LRGLSSGWSS
PLLPAVCNP NKAIFTVDK TTEILVANDK ACGLLGYSQ DLIGQKLTQF FLRSDSDVVE
ALSEEHMEAD GHAAVFGTV VDIISRSGEK IPVSVWMKRM RQERRLCCVV VLEPVERVST
WVAFQSDGTV TSCDSLFAHL HGYVSGEDVA GQHITDLIPS VQLPPSGQHI PKNLKIQRSV
GRARDGTTFF LSLKLSQPS SEEATTGEEA PVSGYRASVW VFCTISGLIT LLPDGTIHGI
NHSFALTLFG YGKTELLGKN ITFLIPGFYS YMDLAYNSSL QLPDLASCLD VGNESGCGER
TLDPWQGQDP AEGGQDPRIN VVLAGGHVVP RDEIRKLMES QDIFTGTQTE LIAGGQLLSC
LSPQPAPGVD NVPEGSLPVH GEQALPKDQQ ITALGREEPV AIESPGDLL GERSPEVDV
KPFASCEDSE APVPAEDGGS DAGMCGLCQK AQLERMGVSG PSGSDLWAGA AVAKPQAKGQ
LAGGSLLMHC PCYGSEWGLW WRSQDLAPSP SGMAGLSFGT PTLDEPWLGV ENDREELQTC
LIKEQLSQLS LAGALDVPHA ELVPTECQAV TAPVSSCDLG GRDLGCGCTG SSSACYALAT

DLPGGLEAVE AQEVDVNSFS WNLKELFFSD QTDQTSSNCS CATSELRETP SSLAVGSDPD
VGSLQEQGSC VLDDRELLLL TGTCVDLGQG RRFRESCVGH DPTEPLEVCL VSSEHYAASD
RESPGHVPST LDAGPEDTCP SAEEPRLNVQ VTSTPVIVMR GAAGLQREIQ EGAYSGSCYH
RDGLRLSIQF EVRRVLEQGP TPLFCCWLVK DLLHSQRDSA ARTRLFLASL PGSTHSTAAE
LTGPSLVEVL RARPWFEEPP KAVELEGLAA CEGEYSQKYS TMSPLGSGAF GFVWTAVDKE
KNKEVVVKFI KKEKVLDCW IEDPKLGKVT LEIILSRVE HANIIKVLDI FENQFFFQLV
MEKHGSGLDL FAFIDRHPRL DEPLASYIFR QLVSAVGYLR LKDIHRDIK DENIVIAEDF TIKLIDFGSA
AYLERGKLFY TFCGTIEYCA PEVLMGNPYR GPELEMWSLG VTLYTLVFEE NPFCELEETV
EAAIHPPYLV SKELMSLVSG LLQPVPERRT TLEKLVTPDW VTQPVNLADY TWEEVFRVNK
PESGVLSAAS LEMGNRSLSD VAQAQELCGG PVPGEAPNGQ GCLHPGDPRL LTS

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 -

Product Details

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®): <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:	PASK
Alternative Name:	PASK (PASK Products)
Background:	<p>PAS domain-containing serine/threonine-protein kinase (PAS-kinase) (PASKIN) (hPASK) (EC 2.7.11.1),FUNCTION: Serine/threonine-protein kinase involved in energy homeostasis and protein translation. Phosphorylates EEF1A1, GYS1, PDX1 and RPS6. Probably plays a role under changing environmental conditions (oxygen, glucose, nutrition), rather than under standard conditions. Acts as a sensor involved in energy homeostasis: regulates glycogen synthase synthesis by mediating phosphorylation of GYS1, leading to GYS1 inactivation. May be involved in glucose-stimulated insulin production in pancreas and regulation of glucagon secretion by glucose in alpha cells, however such data require additional evidences. May play a role in regulation of protein translation by phosphorylating EEF1A1, leading to increase translation efficiency. May also participate in respiratory regulation. {ECO:0000269 PubMed:16275910, ECO:0000269 PubMed:17052199, ECO:0000269 PubMed:17595531, ECO:0000269 PubMed:20943661, ECO:0000269 PubMed:21181396, ECO:0000269 PubMed:21418524}.</p>

Target Details

Molecular Weight: 142.9 kDa

UniProt: [Q96RG2](#)

Pathways: [Regulation of Carbohydrate 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.

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)