Datasheet for ABIN3073879

TESK1 Protein (AA 1-626) (Strep Tag)

Go to Product page

1 Image

Overview

Quantity:	1 mg
Target:	TESK1
Protein Characteristics:	AA 1-626
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TESK1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Sequence:	MAGERPPLRG PGPGPGEVPG EGPPGPGGTG GGPGRGRPSS YRALRSAVSS LARVDDFHCA EKIGAGFFSE VYKVRHRQSG QVMVLKMNKL PSNRGNTLRE VQLMNRLRHP NILRFMGVCV HQGQLHALTE YMNGGTLEQL LSSPEPLSWP VRLHLALDIA RGLRYLHSKG VFHRDLTSKN CLVRREDRGF TAVVGDFGLA EKIPVYREGA RKEPLAVVGS PYWMAPEVLR GELYDEKADV FAFGIVLCEL IARVPADPDY LPRTEDFGLD VPAFRTLVGD DCPLPFLLLA IHCCNLEPST RAPFTEITQH LEWILEQLPE PAPLTRTALT HNQGSVARGG PSATLPRPDP RLSRSRSDLF LPPSPESPPN WGDNLTRVNP FSLREDLRGG KIKLLDTPSK PVLPLVPPSP FPSTQLPLVT TPETLVQPGT PARRCRSLPS SPELPRRMET ALPGPGPPAV GPSAEEKMEC EGSSPEPEPP GPAPQLPLAV ATDNFISTCS SASQPWSPRS GPVLNNNPPA VVVNSPQGWA GEPWNRAQHS LPRAAALERT EPSPPPSAPR EPDEGLPCPG CCLGPFSFGF LSMCPRPTPA VARYRNLNCE AGSLLCHRGH HAKPPTPSLQ LPGARS **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.

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

Product Details

	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:	TESK1
Alternative Name:	TESK1 (TESK1 Products)
Background:	Dual specificity testis-specific protein kinase 1 (EC 2.7.12.1) (Testicular protein kinase 1),FUNCTION: Dual specificity protein kinase activity catalyzing autophosphorylation and phosphorylation of exogenous substrates on both serine/threonine and tyrosine residues (By similarity). Regulates the cellular cytoskeleton by enhancing actin stress fiber formation via phosphorylation of cofilin and by preventing microtubule breakdown via inhibition of TAOK1/MARKK kinase activity (By similarity). Inhibits podocyte motility via regulation of actin cytoskeletal dynamics and phosphorylation of CFL1 (By similarity). Positively regulates integrin-mediated cell spreading, via phosphorylation of cofilin (PubMed:15584898). Suppresses ciliogenesis via multiple pathways, phosphorylation of CFL1, suppression of ciliary vesicle directional trafficking to the ciliary base, and by facilitating YAP1 nuclear localization where it acts as a transcriptional corepressor of the TEAD4 target genes AURKA and PLK1 (PubMed:25849865). Probably plays a central role at and after the meiotic phase of spermatogenesis (By similarity). {ECO:0000250|UniProtKB:O70146, ECO:0000250|UniProtKB:Q63572, ECO:0000269|PubMed:15584898, ECO:0000269|PubMed:25849865}.
Molecular Weight:	67.7 kDa
UniProt:	Q15569

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.

Application Details

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)

Images

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