

Datasheet for ABIN3093683
MARK3 Protein (AA 1-753) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	MARK3
Protein Characteristics:	AA 1-753
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This MARK3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MSTRTP LPTV NERDTENHTS HGDGRQEVTS RTSRSGARCR NSIASCADEQ PHIGNYRLLK TIGKGNFAKV KLARHILTGR EVAIKIIDKT QLNPTSLQKL FREVRIMKIL NHPNIVKLFV VIETEKTLYL IMEYASGGEV FDYLVAHGRM KEKEARSKFR QIVSAVQYCH QKRIVHRDLK AENLLLDADM NIKIADFGFS NEFTVGGKLD TFCGSPPYAA PELFQGKKYD GPEVDVWSLG VILYTLVSGS LPFDGQNLKE LRERVLRGKY RIPFYMSTDC ENLLKRFLVL NPIKRGTLAQ IMKDRWINAG HEEDELKPFV EPELDISDQK RIDIMVGMGY SQEEIQESLS KMKYDEITAT YLLLGRKSSE LDASDSSSSS NLSLAKVRPS SDLNNSTGQS PHHKVQRSVS SSQKQRRYSV HAGPAIPSVV AYPKRSQTST ADSDLKEDGI SSRKSSGSAV GKGKIAPASP MLGNASPNK ADIPERKKSS TVPSSNTASG GMTRRNTYVC SERTTADRHS VIQNGKENST IPDQRTPVAS THSISSAATP DRIRFPRGTA SRSTFHGQPR ERRTATYNGP PASPSLSHEA TPLSQTRSRG STNLFSLKLS KLTRRNMSFR FIKRLPTEYE RNGRYEGSSR NVSAEQKDEN KEAKPRSLRF TWSMKTTSSM DPGDMMREIR KVL DANNCDY EQRERFLLFC VHGDGHAENL VQWEMEVCCKL PRLSLNGVRF
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KRISGTSIAF KNIASKIANE LKL

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

Product Details

(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: MARK3

Alternative Name: MARK3 ([MARK3 Products](#))

Background: MAP/microtubule affinity-regulating kinase 3 (EC 2.7.11.1) (C-TAK1) (cTAK1) (Cdc25C-associated protein kinase 1) (ELKL motif kinase 2) (EMK-2) (Protein kinase STK10) (Ser/Thr protein kinase PAR-1) (Par-1a) (Serine/threonine-protein kinase p78),FUNCTION: Serine/threonine-protein kinase (PubMed:16822840, PubMed:16980613, PubMed:23666762). Involved in the specific phosphorylation of microtubule-associated proteins for MAP2 and MAP4. Phosphorylates the microtubule-associated protein MAPT/TAU (PubMed:23666762). Phosphorylates CDC25C on 'Ser-216' (PubMed:12941695). Regulates localization and activity of some histone deacetylases by mediating phosphorylation of HDAC7, promoting subsequent interaction between HDAC7 and 14-3-3 and export from the nucleus (PubMed:16980613). Regulates localization and activity of MITF by mediating its phosphorylation, promoting subsequent interaction between MITF and 14-3-3 and retention in the cytosol (PubMed:16822840). Negatively regulates the Hippo signaling pathway and antagonizes the phosphorylation of LATS1. Cooperates with DLG5 to inhibit the kinase activity of STK3/MST2 toward LATS1 (PubMed:28087714). Phosphorylates PKP2 and KSR1 (PubMed:12941695). {ECO:0000269|PubMed:12941695, ECO:0000269|PubMed:16822840, ECO:0000269|PubMed:16980613, ECO:0000269|PubMed:23666762, ECO:0000269|PubMed:28087714}.

Molecular Weight: 84.4 kDa

UniProt: [P27448](#)

Pathways: [SARS-CoV-2 Protein Interactome](#)

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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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