



[Go to Product page](#)

Datasheet for ABIN3083666

## MEPCE Protein (AA 1-689) (Strep Tag)

### 1 Image

#### Overview

Quantity:	1 mg
Target:	MEPCE
Protein Characteristics:	AA 1-689
Origin:	Human
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This MEPCE protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

#### Product Details

Sequence: MIEMAAEKEP FLVPAPPPPL KDESAGGGGP TVPPHQEAAS GELRGGTERG PGRCAPSAGS  
PAAAVGRES P GAAATSSSGP QAQQHRGGGP QAQSHGEARL SDPPGRAAPP DVGEERRGGG  
GTELGPAPP RPRNGYQPHR PPGGGGGKRR NSCNVGGGGG GFKHPAFKRR RRVNSDCDSV  
LPSNFLGGN IFDPLNLNSL LDEEVSRITN AETPKSSPLP AKGRDPVEIL IPKDITDPLS  
LNTCTDEGHV VLASPLKTGR KRHRHRGQHH QQQQAAGGSE SHVPPTAPL TPLLHGEGAS  
QQPRHRGQNR DAPQPYELNT AINCRDEVVS PLPSALQGPS GSLSAPPAAS VISAPSSSS  
RHRKRRRTSS KSEAGARGGG QGSKEKGRGS WGRRHHHHHP LPAAGFKKQQ RKFQYGNYSK  
YYGYRNPSCD DGRLRVLKPE WFRGRDVLDL GCNVGHLLTS IACKWGPSRM VGLDIDSRLI  
HSARQNIHRY LSEELRLPPQ TLEGDPGAEG EGGTTTVRKR SCFPASLTAS RGPIAAPQVP  
LDGADTSVFP NNVVFTGNY VLDRDDLVEA QTPEYDVVLC LSLTKWVHLN WGDEGLKRMF  
RRIYRHLRPG GILVLEPQPW SSYGKRKTLT ETIYKNYYRI QLKPEQFSSY LTSPDVGFS  
YELVATPHNT SKGFQRPVYL FHKARSPSH

**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®):

---

## Product Details

---

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: MEPCE

---

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

---

Background: 7SK snRNA methylphosphate capping enzyme (MePCE) (EC 2.1.1.-) (Bicoid-interacting protein 3 homolog) (Bin3 homolog),FUNCTION: S-adenosyl-L-methionine-dependent methyltransferase that adds a methylphosphate cap at the 5'-end of 7SK snRNA (7SK RNA), leading to stabilize it (PubMed:17643375, PubMed:19906723, PubMed:30559425). Also has a non-enzymatic function as part of the 7SK RNP complex: the 7SK RNP complex sequesters the positive transcription elongation factor b (P-TEFb) in a large inactive 7SK RNP complex preventing RNA polymerase II phosphorylation and subsequent transcriptional elongation (PubMed:17643375). The 7SK RNP complex also promotes snRNA gene transcription by RNA polymerase II via interaction with the little elongation complex (LEC) (PubMed:28254838). In the 7SK RNP complex, MEPCE is required to stabilize 7SK RNA and facilitate the assembly of 7SK RNP complex (PubMed:19906723). MEPCE has a non-enzymatic function in the 7SK RNP complex, interaction with LARP7 within the 7SK RNP complex occluding its catalytic center (PubMed:19906723). {ECO:0000269|PubMed:17643375, ECO:0000269|PubMed:19906723, ECO:0000269|PubMed:28254838, ECO:0000269|PubMed:30559425}.

---

Molecular Weight: 74.4 kDa

---

UniProt: [Q7L2J0](#)

---

Pathways: [Chromatin Binding](#), [SARS-CoV-2 Protein Interactome](#), [The Global Phosphorylation Landscape of SARS-CoV-2 Infection](#)

## 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