

Datasheet for ABIN3093868

MPP5 Protein (AA 1-675) (Strep Tag)**1** Image[Go to Product page](#)

Overview

| | |
|-------------------------------|---|
| Quantity: | 1 mg |
| Target: | MPP5 |
| Protein Characteristics: | AA 1-675 |
| Origin: | Human |
| Source: | Tobacco (Nicotiana tabacum) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This MPP5 protein is labelled with Strep Tag. |
| Application: | ELISA, Western Blotting (WB), SDS-PAGE (SDS) |

Product Details

| | |
|-----------|--|
| Sequence: | MTTSHMNGHV TEESDSEVKN VDLASPEEHQ KHREMAVDCP GDLGTRMMPI RRSACLIRIR QQQEDMRRRR EEEGKKQELD LNSSMRLKKL AQIPPKTGID NPMFDTEEGI VLESPHYAVK ILEIEDLFSS LKHIQHTLVD SQSQEDISLL LQLVQNKDFQ NAFKIHNAT VHMNKASPPF PLISNAQDLA QEVQTVLKPV HHKEGQELTA LLNTPHIQAL LLAHDKVAEQ EMQLEPITDE RVYESIGQYG GETVKIVRIE KARDIPLGAT VRNEMDSVII SRIVKGGAEE KSGLLHEGDE VLEINGIEIR GKDVNEVFDL LSDMHGTLTF VLIPSQQIKP PPAKETVIHV KAHFDYDPSD DPYVPCRELG LSFQKGDILH VISQEDPNWW QAYREGDEDN QPLAGLVPGK SFQQQREAMK QTIEEDKEPE KSGKLWCAKK NKKKRKKVLY NANKNDDYDN EEILTYEEMS LYHQPANRKR PIILIGPQNC GQNELRQRLM NKEKDRFASA VPHTTRSRRD QEVAGRDIYHF VSRQAFEDI AAGKFIEHGE FEKNLYGTISI DSVRQVINSK KICLLSLRTQ SLKTLRNSDL KPYIIFIAPP SQERLRALLA KEGKNPKPEE LREIIEKTRE MEQNNGHYFD TAINSDLDK AYQELLRLIN KLDTEPQWVP STWLR |
|-----------|--|

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: MPP5

Alternative Name: PALS1 ([MPP5 Products](#))

Background: Protein PALS1 (MAGUK p55 subfamily member 5) (Membrane protein, palmitoylated 5) (Protein associated with Lin-7 1),FUNCTION: Plays a role in tight junction biogenesis and in the establishment of cell polarity in epithelial cells (PubMed:16678097, PubMed:25385611). Also involved in adherens junction biogenesis by ensuring correct localization of the exocyst complex protein EXOC4/SEC8 which allows trafficking of adherens junction structural component CDH1 to the cell surface (By similarity). Plays a role through its interaction with CDH5 in vascular lumen formation and endothelial membrane polarity (PubMed:27466317). Required during embryonic and postnatal retinal development (By similarity). Required for the maintenance of cerebellar progenitor cells in an undifferentiated proliferative state, preventing premature differentiation, and is required for cerebellar histogenesis, fissure formation, cerebellar layer organization and cortical development (By similarity). Plays a role in neuronal progenitor cell survival, potentially via promotion of mTOR signaling (By similarity). Plays a role in the radial and longitudinal extension of the myelin sheath in Schwann cells (By similarity). May modulate SC6A1/GAT1-mediated GABA uptake by stabilizing the transporter (By similarity). Plays a role in the T-cell receptor-mediated activation of NF-kappa-B (PubMed:21479189). Required for localization of EZR to the apical membrane of parietal cells and may play a role in the dynamic remodeling of the apical cytoskeleton (By similarity). Required for the normal polarized localization of the vesicular marker STX4 (By similarity). Required for the correct trafficking of the myelin proteins PMP22 and MAG (By similarity). Involved in promoting phosphorylation and cytoplasmic retention of transcriptional coactivators YAP1 and WWTR1/TAZ which leads to suppression of TGFB1-dependent transcription of target genes such as CCN2/CTGF, SERPINE1/PAI1, SNAI1/SNAIL1 and SMAD7

Target Details

(By similarity). {ECO:0000250|UniProtKB:B4F7E7, ECO:0000250|UniProtKB:Q9JLB2, ECO:0000269|PubMed:16678097, ECO:0000269|PubMed:21479189, ECO:0000269|PubMed:25385611, ECO:0000269|PubMed:27466317}., FUNCTION: (Microbial infection) Acts as an interaction partner for human coronaviruses SARS-CoV and, probably, SARS-CoV-2 envelope protein E which results in delayed formation of tight junctions and disregulation of cell polarity. {ECO:0000269|PubMed:20861307, ECO:0000303|PubMed:32891874}.

Molecular Weight: 77.3 kDa

UniProt: [Q8N3R9](#)

Pathways: [Nucleotide Phosphorylation](#), [Tube Formation](#), [Asymmetric Protein Localization](#)

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.

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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.

Handling

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