

Datasheet for ABIN3137049

## MCM8 Protein (AA 1-833) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	MCM8
Protein Characteristics:	AA 1-833
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This MCM8 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Brand:	AlIcE®
Sequence:	<p>MSGAYRGRGF GRGRFQSWKR GRGGGNFSGR WRERENRVDL NEASGKHASHA QASQPLLQQS</p> <p>TLDQFIPYKG WKLYFSEVYS NNSPFIEIKI AFEKFFTRHI DLYDKDEIER KGSILVDFKE</p> <p>LTKADEITNL IPDIENALRD APEKTLACMG LAIHQVLT KD LERHAAELQA QEGLSNGGET</p> <p>MVNVPHIYAR VYNYEPLTHL KNIRATCYGK YISIRGTVVR VSNIKPLCTN MAFQCAACGE</p> <p>IQSFPLPDGK YTLPTKCPVP ACRGRSFAPL RSSPLTVTLD WQLIKIQELM SDAQREAGRI</p> <p>PRTIECELVH DLVDSCVPGD TVTVTGIVKV SNSEEGSRNK NDKCMFLLYI EANSVSNKSG</p> <p>PKAQTAE DGC KHGTLMEFSL KDLYAIREIQ AEENLLKL VV NSLCPVIFGH ELVKAGLTLA</p> <p>LFGGSQKYAD DKNRIPIRGD PHVLIVGDPG LGKSQMLQAA CNVAPRGVYV CGNTTTSSGL</p> <p>TVTLSKDSSS GDFALEAGAL VLG DQGICGI DEF DKMGNQH QALLEAMEQQ SISLAKAGVV</p> <p>CSL PARTSII AAANPVGGHY NKARTVSENL KMGSALLSRF DLVFILLDTP NEQHDHLLSE</p> <p>HVIAIRAGKQ KAVSSATVTR VLSQDSNTSV LEVSEKPLS ERLKVAPGEQ TDPIPHQLLR</p>

KYIGYARQYV HPRLESTDAAQ ALQDFYLELR KQSQRVGSSP ITTRQLES LI RLTEARARLE  
LREEATREDA EDIIEIMKHS MLGTYSDEFG NLDERSQHG SGMSNRSTAK RFISALNSIA  
ERTYNNIFQY HQLRQIAKEL NIQVADFENF IGSLNDQGYL LKKGPKIYQL QTM

**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.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

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### Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression

## Product Details

	System (ALiCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

## Target Details

Target:	MCM8
Alternative Name:	Mcm8 ( <a href="#">MCM8 Products</a> )
Background:	<p>DNA helicase MCM8 (EC 3.6.4.12) (Minichromosome maintenance 8),FUNCTION: Component of the MCM8-MCM9 complex, a complex involved in the repair of double-stranded DNA breaks (DBSs) and DNA interstrand cross-links (ICLs) by homologous recombination (HR). Required for DNA resection by the MRE11-RAD50-NBN/NBS1 (MRN) complex by recruiting the MRN complex to the repair site and by promoting the complex nuclease activity. Probably by regulating the localization of the MNR complex, indirectly regulates the recruitment of downstream effector RAD51 to DNA damage sites including DBSs and ICLs. The MCM8-MCM9 complex is dispensable for DNA replication and S phase progression. However, may play a non-essential for DNA replication: may be involved in the activation of the prereplicative complex (pre-RC) during G(1) phase by recruiting CDC6 to the origin recognition complex (ORC) (By similarity). Probably by regulating HR, plays a key role during gametogenesis (PubMed:22771120). Stabilizes MCM9 protein (By similarity). {ECO:0000250 UniProtKB:Q9UJA3, ECO:0000269 PubMed:22771120}.</p>
Molecular Weight:	92.4 kDa
UniProt:	<a href="#">Q9CWV1</a>
Pathways:	<a href="#">Mitotic G1-G1/S Phases</a> , <a href="#">DNA Replication</a> , <a href="#">Synthesis of DNA</a>

## 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 <i>Nicotiana tabacum</i> 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.

Application Details

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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months