

Datasheet for ABIN3093764

MCM8 Protein (AA 1-840) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	MCM8
Protein Characteristics:	AA 1-840
Origin:	Human
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>MNGEYRGRGF GRGRFQSWKR GRGGGNFSGK WREREHRPDL SKTTGKRTSE QTPQFLLSTK</p> <p>TPQSMQSTLD RFIPYKGWKL YFSEVYSDSS PLIEKIQAFE KFFTRHIDLY DKDEIERKGS</p> <p>ILVDFKELTE GGEVTNLIPD IATELRDAPE KTLACMGLAI HQVLTCDLER HAAELQAQEG</p> <p>LSNDGETMVN VPHIHARVYN YEPLTQLKNV RANYYGKYIA LRGTVVRVSN IKPLCTKMAF</p> <p>LCAACGEIQS FPLPDGKYSY PTKCPVPVCR GRSFTALRSS PLTVTMDWQS IKIQELMSDD</p> <p>QREAGRIPRT IECVLVHDLV DSCVPDGTVT ITGIVKVSNA EEGSRNKNDK CMFLLYIEAN</p> <p>SISNSKGQKT KSSDGCKHG MLMEFSLKDL YAIQEIQAE NLFKLIVNSL CPVIFGHELV</p> <p>KAGLALALFG GSQKYADCKN RIPIRGDPHI LVVGDPGLGK SQMLQAACNV APRGVYVCGN</p> <p>TTTTSGTLVT LSKDSSSGDF ALEAGALVLG DQGICGIDEF DKMGNGHQAL LEAMEQQSIS</p> <p>LAKAGVVCSL PARTSIIAAA NPVGGHYNKA KTVSENLKMG SALLSRFDLV FILLDTPNEH</p> <p>HDHLLSEHVI AIRAGKQRTI SSATVARMNS QDSNTSVLEV VSEKPLSERL KVPGETIDP</p>

IPHQLLRKYI GYARQYVYPR LSTEAARVLQ DFYLELRKQS QRLNSSPITT RQLESLIRLT
EARARLELRE EATKEDAEDI VEIMKYSMLG TYSDEFGNLD FERSQHGSGM SNRSTAKRFI
SALNNVAERT YNNIFQFHQL RQIAKELNIQ VADFENFIGS LNDQGYLLKK GPKVYQLQTM

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 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.

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 ([MCM8 Products](#))

Background: 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) (PubMed:23401855). 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 (PubMed:26215093). 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 (PubMed:23401855). The MCM8-MCM9 complex is dispensable for DNA replication and S phase progression (PubMed:23401855). 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) (PubMed:15684404). Probably by regulating HR, plays a key role during gametogenesis (By similarity). Stabilizes MCM9 protein (PubMed:23401855, PubMed:26215093). {ECO:0000250|UniProtKB:Q9CWV1, ECO:0000269|PubMed:15684404, ECO:0000269|PubMed:23401855, ECO:0000269|PubMed:26215093}.

Molecular Weight: 93.7 kDa

UniProt: [Q9UJA3](#)

Pathways: [Mitotic G1-G1/S Phases](#), [DNA Replication](#), [Synthesis of DNA](#)

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

Application Details

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