

Datasheet for ABIN3093724

**MCM4 Protein (AA 2-863) (His tag)**[Go to Product page](#)

## Overview

Quantity:	1 mg
Target:	MCM4
Protein Characteristics:	AA 2-863
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MCM4 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

## Product Details

Sequence:	SSPASTPSRR GSRRGRATPA QTPRSEDARS SPSQRRRGED STSTGELQPM PTSPGVDLQS PAAQDVLFSS PPQMHSSAIP LDFDVSSPLT YGTPSSRVEG TPRSGVRGTP VRQRPDLGSA QKGLQVDLQS DGAAAEDIVA SEQSLGQKLV IWGTDVNVAA CKENFQRFLQ RFIDPLAKEE ENVGIDITEP LYMQRLGEIN VIGEPFLNVN CEHIKSFDKN LYRQLISYPQ EVIPTFDMAV NEIFFDRYPD SILEHQIQVR PFNALKTKNM RNLNPEDIDQ LITISGMVIR TSQLIPEMQE AFFQCQVCAH TTRVEMDRGR IAEPSVCGRC HTTHSMALIH NRSLSFDKQM IKLQESPEDM PAGQTPHTVI LFAHNDLVDK VQPGDRVNVT GIYRAVPIRV NPRVSNVKS SVYKTHIDVIHY RKTDARLHG LDEEAQKLF SEKRVELLKE LSRKPDYER LASALAPSIY EHEDIKKGIL LQLFGGTRKD FSHTGRGKFR AEINILLCGD PGTSKSQLLQ YVYNLVRGQ YTSKGKSSAV GLTAYVMKDP ETRQLVLQTG ALVLSDNGIC CIDEFDKMNE STRSVLHEVM EQQTLSIAKA GIICQLNART SVLAAANPIE SQWNPCKTTI ENIQLPHTLL SRFDLIFLLL DPQDEAYDRR LAHHLVALYY QSEEQAEEL LDMAVLKDYI AYAHSIMPR LSEEASQALI EAYVDMRKIG
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SSRGMVSAYP RQLESLIRLA EAHAKVRLSN KVEAIDVEEA KRLHREALKQ SATDPRTGIV  
DISILTTGMS ATSRKRKEEL AEALKKLILS KGKTPALKYQ QLFEDIRGQS DIAITKDMFE  
EALRALADDD FLTVTGKTVR LL

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

Characteristics:	<ul style="list-style-type: none"><li>• Made in Germany - from design to production - by highly experienced protein experts.</li><li>• Human MCM4 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.</li><li>• State-of-the-art algorithm used for plasmid design (Gene synthesis).</li></ul> <p>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.</p> <p>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.</p> <p>In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).</p> <p>When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.</p> <p>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.</p> <p>The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.</p>
Purification:	<p>Two step purification of proteins expressed in baculovirus infected SF9 insect cells:</p> <ol style="list-style-type: none"><li>1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.</li><li>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.</li></ol>
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered

## Product Details

Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

## Target Details

Target: MCM4

Alternative Name: MCM4 ([MCM4 Products](#))

Background: Acts as component of the MCM2-7 complex (MCM complex) which is the putative replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells. The active ATPase sites in the MCM2-7 ring are formed through the interaction surfaces of two neighboring subunits such that a critical structure of a conserved arginine finger motif is provided in trans relative to the ATP-binding site of the Walker A box of the adjacent subunit. The six ATPase active sites, however, are likely to contribute differentially to the complex helicase activity. {ECO:0000269|PubMed:16899510, ECO:0000269|PubMed:9305914}.

Molecular Weight: 97.4 kDa Including tag.

UniProt: [P33991](#)

Pathways: [DNA Damage Repair](#), [Mitotic G1-G1/S Phases](#), [DNA Replication](#), [Chromatin Binding](#), [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: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

## Handling

Format: Liquid

Buffer: 100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

# Handling

Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)