

# Datasheet for ABIN7554482 MCM9 Protein (AA 1-1143) (His tag)



# Overview

Quantity:	1 mg
Target:	MCM9
Protein Characteristics:	AA 1-1143
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MCM9 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Purpose:	Custom-made recombinat MCM9 Protein expressed in mammalien cells.
Sequence:	MNSDQVTLVG QVFESYVSEY HKNDILLILK ERDEDAHYPV VVNAMTLFET NMEIGEYFNM
	FPSEVLTIFD SALRRSALTI LQSLSQPEAV SMKQNLHARI SGLPVCPELV REHIPKTKDV
	GHFLSVTGTV IRTSLVKVLE FERDYMCNKC KHVFVIKADF EQYYTFCRPS SCPSLESCDS
	SKFTCLSGLS SSPTRCRDYQ EIKIQEQVQR LSVGSIPRSM KVILEDDLVD SCKSGDDLTI
	YGIVMQRWKP FQQDVRCEVE IVLKANYIQV NNEQSSGIIM DEEVQKEFED FWEYYKSDPF
	AGRNVILASL CPQVFGMYLV KLAVAMVLAG GIQRTDATGT RVRGESHLLL VGDPGTGKSQ
	FLKYAAKITP RSVLTTGIGS TSAGLTVTAV KDSGEWNLEA GALVLADAGL CCIDEFNSLK
	EHDRTSIHEA MEQQTISVAK AGLVCKLNTR TTILAATNPK GQYDPQESVS VNIALGSPLL
	SRFDLILVLL DTKNEDWDRI ISSFILENKG YPSKSEKLWS MEKMKTYFCL IRNLQPTLSD
	VGNQVLLRYY QMQRQSDCRN AARTTIRLLE SLIRLAEAHA RLMFRDTVTL EDAITVVSVM
	ESSMQGGALL GGVNALHTSF PENPGEQYQR QCELILEKLE LQSLLSEELR RLERLQNQSV

HQSQPRVLEV ETTPGSLRNG PGEESNFRTS SQQEINYSTH IFSPGGSPEG SPVLDPPPHL
EPNRSTSRKH SAQHKNNRDD SLDWFDFMAT HQSEPKNTVV VSPHPKTSGE NMASKISNST
SQGKEKSEPG QRSKVDIGLL PSPGETGVPW RADNVESNKK KRLALDSEAA VSADKPDSVL
THHVPRNLQK LCKERAQKLC RNSTRVPAQC TVPSHPQSTP VHSPDRMLDS PKRKRPKSLA
QVEEPAIENV KPPGSPVAKL AKFTFKQKSK LIHSFEDHSH VSPGATKIAV HSPKISQRRT
RRDAALPVKR PGKLTSTPGN QISSQPQGET KEVSQQPPEK HGPREKVMCA PEKRIIQPEL
ELGNETGCAH LTCEGDKKEE VSGSNKSGKV HACTLARLAN FCFTPPSESK SKSPPPERKN
RGERGPSSPP TTTAPMRVSK RKSFQLRGST EKLIVSKESL FTLPELGDEA FDCDWDEEMR KKS

Sequence without tag. The proposed Purification-Tag is based on experiences 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 to order protein from design to production by highly experienced protein experts.
- Protein expressed in mammalien cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

#### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

#### Grade:

custom-made

### Target Details

Target:	MCM9
Alternative Name:	MCM9 (MCM9 Products)
Background:	DNA helicase MCM9 (hMCM9) (EC 3.6.4.12) (Mini-chromosome maintenance deficient domain-
	containing protein 1) (Minichromosome maintenance 9),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 MRN complex, indirectly regulates the recruitment of downstream effector RAD51 to DNA damage sites including DBSs and ICLs (PubMed:23401855). Acts as a helicase in DNA mismatch repair (MMR) following DNA replication errors to unwind the mismatch containing DNA strand (PubMed:26300262). In addition, recruits MLH1, a component of the MMR complex, to chromatin (PubMed:26300262). The MCM8-MCM9 complex is dispensable for DNA replication and S phase progression (PubMed:23401855). Probably by regulating HR, plays a key role during gametogenesis (By similarity). {ECO:0000250|UniProtKB:Q2KHI9, ECO:0000269|PubMed:23401855, ECO:0000269|PubMed:26315093, ECO:0000269|PubMed:26300262}.

Molecular Weight:

127.3 kDa

UniProt:

Q9NXL9

## **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.

Restrictions:

For Research Use only

# Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months