

Datasheet for ABIN7563447
PMS2 Protein (AA 1-859) (His tag)



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Overview

Quantity:	1 mg
Target:	PMS2
Protein Characteristics:	AA 1-859
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PMS2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Pms2 Protein expressed in mammalien cells.
Sequence:	MEQTEGVSTE CAKAIKPIDG KSVHQICSGQ VVLSLSTAVK ELIENSVDAG ATTIDRLKLD YGVDLIEVSD NGCGVEEENF EGLALKHHTS KIQEFADLTQ VETFGFRGEA LSSLCALSDV TISTCHGSAS VGTRLVFDHN GKITQKTPYP RPKGTTVSVQ HLFYTLPVRY KEFQRNIKKE YAKMVQVLQA YCIISAGVRV SCTNQLGQ GK RQPVVCTSGS SGMKENIGSV FGQKQLQSLI PFVQLPPSDA VCEEYGLSTS RTPQNLFYVS GFISQCTHGA GRSATDRQFF FINQRPCDPA KVSKLVNEVY HMYNRHQYPF VVLNVSVSDSE CVDINVTPDK RQILLQEEKL LLAVLKTSLI GMFSDANKL NVNQPLLDV EGNLVKLHTA ELEKPVPGKQ DNPSLTKSTA DEKRVASISR LREAFSLHPT KEIKSRGPET AELTRSFSE KRGVLSSYPS DVISYRGLRG SQDKLVSPTD SPGDCMDREK IEKDSGLSST SAGSEEGFST PEVASSFSSD YNVSSPEDRP SQETINCGDL DCRPPGTGQS LKPEDHGYQC KALPLARLSP TNAKRFKTEE RPSNVNISQR LPGPQSTSAA EVDVAIKMNK RIVLLEFSLSLAKRMKQLQ HLKAQNKHEL SYRKFRKIC PGENQAAEDE

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LRKEISKSMF AEMEILGQFN LGFIVTKLKE DLFLVDQHAA DEKYNFEMLQ QHTVLQAQRL
ITPQTLNLTA VNEAVLIENL EIFRKNQDFD VIDEDAPVTE RAKLISLPTS KNWTFGPQDI
DELIFMLSDS PGVMCRPSRV RQMFASRACR KSVMIGTALN ASEMKKLITH MGEMDHPWNC
PHGRPTMRHV ANLDVISQN **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 mammalian 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:

PMS2

Alternative Name:

Pms2 ([PMS2 Products](#))

Background:

Mismatch repair endonuclease PMS2 (EC 3.1.-.-) (DNA mismatch repair protein PMS2) (PMS1 protein homolog 2),FUNCTION: Component of the post-replicative DNA mismatch repair system (MMR). Heterodimerizes with MLH1 to form MutL alpha. DNA repair is initiated by MutS alpha (MSH2-MSH6) or MutS beta (MSH2-MSH3) binding to a dsDNA mismatch, then MutL alpha is recruited to the heteroduplex. Assembly of the MutL-MutS-heteroduplex ternary complex in presence of RFC and PCNA is sufficient to activate endonuclease activity of PMS2. It introduces single-strand breaks near the mismatch and thus generates new entry points for

Target Details

the exonuclease EXO1 to degrade the strand containing the mismatch. DNA methylation would prevent cleavage and therefore assure that only the newly mutated DNA strand is going to be corrected. MutL alpha (MLH1-PMS2) interacts physically with the clamp loader subunits of DNA polymerase III, suggesting that it may play a role to recruit the DNA polymerase III to the site of the MMR. Also implicated in DNA damage signaling, a process which induces cell cycle arrest and can lead to apoptosis in case of major DNA damages. Possesses an ATPase activity, but in the absence of gross structural changes, ATP hydrolysis may not be necessary for proficient mismatch repair (By similarity). {ECO:0000250|UniProtKB:P54278}.

Molecular Weight: 95.3 kDa

UniProt: [P54279](#)

Pathways: [DNA Damage Repair](#), [Production of Molecular Mediator of Immune Response](#)

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