



Datasheet for ABIN3132954
MSH3 Protein (AA 1-1091) (His tag)



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1 Image

Overview

Quantity:	1 mg
Target:	MSH3
Protein Characteristics:	AA 1-1091
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MSH3 protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	<p>MPRGKSASGG STAAGPGPGR QTVLSRFFRS AGSLRSSASS TEPAEKVTEG DSRKRSLGNG GPTKKKARKV PEKEEENISV ASHHPEAKKC LRPRIVLKSL EKLKEFCCDS ALPQNRVQTE ALRERLEVLP RCTDFEDITL QRAKNAVLSE DSKSQANQKD SQFGPCPEVF QKTS DCKPFN KRSKSVYTPL ELQYLDMKQQ HKDAVLCVEC GYKYRFFGED AEIAARELNI YCHLDHNFMT ASIPHTRLFV HVRRLVAKGY KGVVVKQTET AALKAIGDNK SSVFSRKLTA LYTKSTLIGE DVNPLIRLDD SVNIDEVMTD TSTNYLLCIY EEKENIKDKK KGNLSVGVVG VQPATGEVVF DCFQDSASRL ELETRISLQ PVELLLPSDL SEPTEMLIQR ATNVSVRDDR IRVERMNNTY FEYSHAFQTV TEFYAREIVD SQGSQSLSGV INLEKPVICA LAAVIRYLKE FNLEKMLSKP ESFKQLSSGM EFMRINGTTL RNLEMVQNQT DMKTKGSLW VLDHTKTSFG RRKLKNWVTQ PLLKREINA RLDAVSDVLH SESSVFEQIE NLLRKLDPVE RGLCSIYHKK CSTQEFLIV KSLCQLKSEL QALMPAVNSH VQSDLLRALI VELLSPVEHY LKVLNGPAAK VGDKTELFKD LSDFPLIKKR KNEIQEVIHS IQMRLQEFRK ILKLPSLQYV TVSGQEFMIE IKNSAVSCIP</p>
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ADWVKVGSTK AVSRFHPPFI VESYRRLNQL REQLVDCNA EWLGFLENFG EHYHTLCKAV
DHLATVDCIF SLAKVAKQGN YCRPTLQEEK KIIKNGRHP MIDVLLGEQD QFVPNSTSLS
DSERVMITG PNMGGKSSYI KQVTLVTIMA QIGSYVPAEE ATIGIVDGIF TRMGAADNIY
KGRSTFMEQL TDTAEIIRRA SPQSLVILDE LGRGTSTHDG IAIAYATLEY FIRDVKSLTL
FVTHYPPVCE LEKCYPEQVG NYHMGFLVNE DESKQDSGDM EQMPDSVTFL YQITRGIAAR
SYGLNVAKLA DVPREVLQKA AHKSKELEGL VSLRRKRLEC FTDLWMTHSV KDLHTWADKL
EMEEIQTSLP H

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

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Msh3 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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 will ensure that you receive a correctly folded 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.

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).

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.

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.

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.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

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.
2. Protein containing fractions of the best purification are subjected to second purification step

Product Details

through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity: >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility: 0.22 µm filtered

Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

Target Details

Target: MSH3

Alternative Name: Msh3 ([MSH3 Products](#))

Background: Component of the post-replicative DNA mismatch repair system (MMR). Heterodimerizes with MSH2 to form MutS beta which binds to DNA mismatches thereby initiating DNA repair. When bound, the MutS beta heterodimer bends the DNA helix and shields approximately 20 base pairs. MutS beta recognizes large insertion-deletion loops (IDL) up to 13 nucleotides long. After mismatch binding, forms a ternary complex with the MutL alpha heterodimer, which is thought to be responsible for directing the downstream MMR events, including strand discrimination, excision, and resynthesis (By similarity). {ECO:0000250}.

Molecular Weight: 124.0 kDa Including tag.

UniProt: [P13705](#)

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.

Comment: Protein has not been tested for activity yet. 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 Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process