Datasheet for ABIN3093940

MSH3 Protein (AA 1-1137) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	MSH3
Protein Characteristics:	AA 1-1137
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This MSH3 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MSRRKPASGG LAASSSAPAR QAVLSRFFQS TGSLKSTSSS TGAADQVDPG AAAAAAAAAA AAPPAPPAPA FPPQLPPHIA TEIDRRKKRP LENDGPVKKK VKKVQQKEGG SDLGMSGNSE PKKCLRTRNV SKSLEKLKEF CCDSALPQSR VQTESLQERF AVLPKCTDFD DISLLHAKNA VSSEDSKRQI NQKDTTLFDL SQFGSSNTSH ENLQKTASKS ANKRSKSIYT PLELQYIEMK QQHKDAVLCV ECGYKYRFFG EDAEIAAREL NIYCHLDHNF MTASIPTHRL FVHVRRLVAK GYKVGVVKQT ETAALKAIGD NRSSLFSRKL TALYTKSTLI GEDVNPLIKL DDAVNVDEIM TDTSTSYLLC ISENKENVRD KKKGNIFIGI VGVQPATGEV VFDSFQDSAS RSELETRMSS LQPVELLLPS ALSEQTEALI HRATSVSVQD DRIRVERMDN IYFEYSHAFQ AVTEFYAKDT VDIKGSQIIS GIVNLEKPVI CSLAAIIKYL KEFNLEKMLS KPENFKQLSS KMEFMTINGT TLRNLEILQN QTDMKTKGSL LWVLDHTKTS FGRRKLKKWV TQPLLKLREI NARLDAVSEV LHSESSVFGQ IENHLRKLPD IERGLCSIYH KKCSTQEFFL IVKTLYHLKS EFQAIIPAVN SHIQSDLLRT VILEIPELLS PVEHYLKILN EQAAKVGDKT ELFKDLSDFP LIKKRKDEIQ GVIDEIRMHL

QEIRKILKNP SAQYVTVSGQ EFMIEIKNSA VSCIPTDWVK VGSTKAVSRF HSPFIVENYR HLNQLREQLV LDCSAEWLDF LEKFSEHYHS LCKAVHHLAT VDCIFSLAKV AKQGDYCRPT VQEERKIVIK NGRHPVIDVL LGEQDQYVPN NTDLSEDSER VMIITGPNMG GKSSYIKQVA LITIMAQIGS YVPAEEATIG IVDGIFTRMG AADNIYKGQS TFMEELTDTA EIIRKATSQS LVILDELGRG TSTHDGIAIA YATLEYFIRD VKSLTLFVTH YPPVCELEKN YSHQVGNYHM GFLVSEDESK LDPGAAEQVP DFVTFLYQIT RGIAARSYGL NVAKLADVPG EILKKAAHKS KELEGLINTK RKRLKYFAKL WTMHNAQDLQ KWTEEFNMEE TQTSLLH

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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 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.

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:

Product Details

- 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.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE. 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.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	MSH3
Alternative Name:	MSH3 (MSH3 Products)
Background:	DNA mismatch repair protein Msh3 (hMSH3) (Divergent upstream protein) (DUP) (Mismatch repair protein 1) (MRP1),FUNCTION: 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.
Molecular Weight:	127.4 kDa
UniProt:	P20585
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:	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!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

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