Datasheet for ABIN3093948

MSH6 Protein (AA 1-1360) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	MSH6
Protein Characteristics:	AA 1-1360
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This MSH6 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MSRQSTLYSF FPKSPALSDA NKASARASRE GGRAAAAPGA SPSPGGDAAW SEAGPGPRPL ARSASPPKAK NLNGGLRRSV APAAPTSCDF SPGDLVWAKM EGYPWWPCLV YNHPFDGTFI REKGKSVRVH VQFFDDSPTR GWVSKRLLKP YTGSKSKEAQ KGGHFYSAKP EILRAMQRAD EALNKDKIKR LELAVCDEPS EPEEEEEMEV GTTYVTDKSE EDNEIESEEE VQPKTQGSRR SSRQIKKRRV ISDSESDIGG SDVEFKPDTK EEGSSDEISS GVGDSESEGL NSPVKVARKR KRMVTGNGSL KRKSSRKETP SATKQATSIS SETKNTLRAF SAPQNSESQA HVSGGGDDSS RPTVWYHETL EWLKEEKRRD EHRRRPDHPD FDASTLYVPE DFLNSCTPGM RKWWQIKSQN FDLVICYKVG KFYELYHMDA LIGVSELGLV FMKGNWAHSG FPEIAFGRYS DSLVQKGYKV ARVEQTETPE MMEARCRKMA HISKYDRVVR REICRIITKG TQTYSVLEGD PSENYSKYLL SLKEKEEDSS GHTRAYGVCF VDTSLGKFFI GQFSDDRHCS RFRTLVAHYP PVQVLFEKGN LSKETKTILK SSLSCSLQEG LIPGSQFWDA SKTLRTLLEE EYFREKLSDG IGVMLPQVLK

GMTSESDSIG LTPGEKSELA LSALGGCVFY LKKCLIDQEL LSMANFEEYI PLDSDTVSTT RSGAIFTKAY QRMVLDAVTL NNLEIFLNGT NGSTEGTLLE RVDTCHTPFG KRLLKQWLCA PLCNHYAIND RLDAIEDLMV VPDKISEVVE LLKKLPDLER LLSKIHNVGS PLKSQNHPDS RAIMYEETTY SKKKIIDFLS ALEGFKVMCK IIGIMEEVAD GFKSKILKQV ISLQTKNPEG RFPDLTVELN RWDTAFDHEK ARKTGLITPK AGFDSDYDQA LADIRENEQS LLEYLEKQRN RIGCRTIVYW GIGRNRYQLE IPENFTTRNL PEEYELKSTK KGCKRYWTKT IEKKLANLIN AEERRDVSLK DCMRRLFYNF DKNYKDWQSA VECIAVLDVL LCLANYSRGG DGPMCRPVIL LPEDTPPFLE LKGSRHPCIT KTFFGDDFIP NDILIGCEEE EQENGKAYCV LVTGPNMGGK STLMRQAGLL AVMAQMGCYV PAEVCRLTPI DRVFTRLGAS DRIMSGESTF FVELSETASI LMHATAHSLV LVDELGRGTA TFDGTAIANA VVKELAETIK CRTLFSTHYH SLVEDYSQNV AVRLGHMACM VENECEDPSQ ETITFLYKFI KGACPKSYGF NAARLANLPE EVIQKGHRKA REFEKMNQSL RLFREVCLAS ERSTVDAEAV HKLLTLIKEL

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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

Product Details

	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: • The concentration of our recombinant proteins is measured using the absorbance at 280nm. • The protein's absorbance will be measured against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	MSH6
Alternative Name:	MSH6 (MSH6 Products)
Background:	DNA mismatch repair protein Msh6 (hMSH6) (G/T mismatch-binding protein) (GTBP) (GTMBP) (MutS protein homolog 6) (MutS-alpha 160 kDa subunit) (p160),FUNCTION: Component of the post-replicative DNA mismatch repair system (MMR). Heterodimerizes with MSH2 to form MutS alpha, which binds to DNA mismatches thereby initiating DNA repair. When bound, MutS alpha bends the DNA helix and shields approximately 20 base pairs, and recognizes single base mismatches and dinucleotide insertion-deletion loops (IDL) in the DNA. 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. ATP binding and hydrolysis play a pivotal role in mismatch repair functions. The ATPase activity associated with MutS alpha regulates binding similar to a molecular switch: mismatched DNA provokes ADP-->ATP exchange, resulting in a discernible conformational transition that converts MutS alpha into a sliding clamp capable of hydrolysis-independent diffusion along the DNA backbone. This transition is crucial for mismatch repair. MutS alpha may also play a role in DNA homologous recombination repair. Recruited on chromatin in G1 and early S phase via its PWWP domain that specifically binds trimethylated 'Lys-36' of histone H3 (H3K36me3): early recruitment to chromatin to be replicated allowing a quick identification of mismatch repair to initiate the DNA mismatch repair reaction.

Target Details

	{ECO:0000269|PubMed:10078208, ECO:0000269|PubMed:10660545, ECO:0000269|PubMed:15064730, ECO:0000269|PubMed:21120944, ECO:0000269|PubMed:23622243, ECO:0000269|PubMed:9564049, ECO:0000269|PubMed:9822679, ECO:0000269|PubMed:9822680}.
Molecular Weight:	152.8 kDa
UniProt:	P52701
Pathways:	DNA Damage Repair, Chromatin Binding, 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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.

Handling

Expiry Date:	12 months