

Datasheet for ABIN3093922

METTL3 Protein (AA 2-580) (His tag)



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1 Image

Overview

Quantity:	1 mg
Target:	METTL3
Protein Characteristics:	AA 2-580
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This METTL3 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence: SDTWSSIAQH KKQLDSLRRER LQRRRKQDSG HLDLRNPEAA LSPTFRSDSP VPTAPTSGGP
 KPSTASAVPE LATDPELEKK LLHHLSDLAL TLPTDAVSIC LAISTPDAPA TQDGVESLLQ
 KFAAQELIEV KRGLLQDDAH PTLVTYADHS KLSAMMGAVA EKKGPGEVAG TVTGQKRRAE
 QDSTTVAFAA SSLVSGLNSS ASEPAKEPAK KSRKHAASDV DLEIESLLNQ QSTKEQQSKK
 VSQEILELLN TTTAKEQSIV EKFRSRGRAQ VQEFCDYGTK EECMKASDAD RPCRKLHFRR
 IINKHTDESL GDCSFLNTCF HMDTCKYVHY EIDACMDSEA PGSKDHTPSQ ELALTQSVGG
 DSSADRLFPP QWICCDIRYL DVSILGKFAV VMADPPWDIH MELPYGTLTD DEMRRLNIPV
 LQDDGFLFLW VTGRAMELGR ECLNLWGYER VDEIIVWKTN QLQRIIRTGR TGHWLNHGKE
 HCLVGKGNP QGFNQGLDCD VIVAVERSTS HKPDEIYGMI ERLSPGTRKI ELFGRPHNVQ
 PNWITLGNQL DGIHLLDPDV VARFKQRYPD GIISKPKNL

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

Product Details

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human METTL3 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 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:	METTL3
Alternative Name:	METTL3 (METTL3 Products)
Background:	<p>N6-methyltransferase that methylates adenosine residues of some RNAs and acts as a regulator of the circadian clock, differentiation of embryonic stem cells and primary miRNA processing. N6-methyladenosine (m6A), which takes place at the 5'-[AG]GAC-3' consensus sites of some mRNAs, plays a role in the efficiency of mRNA splicing, processing, translation efficiency, editing and mRNA stability (PubMed:22575960, PubMed:24284625, PubMed:25719671, PubMed:25799998, PubMed:26321680, PubMed:26593424, PubMed:9409616). M6A regulates the length of the circadian clock: acts as a early pace-setter in the circadian loop by putting mRNA production on a fast-track for facilitating nuclear processing, thereby providing an early point of control in setting the dynamics of the feedback loop (By similarity). M6A also acts as a regulator of mRNA stability: in embryonic stem cells (ESCs), m6A methylation of mRNAs encoding key naive pluripotency-promoting transcripts results in transcript destabilization, promoting differentiation of ESCs (By similarity). M6A also takes place in other RNA molecules, such as primary miRNA (pri-miRNAs) (PubMed:25799998). Mediates methylation of pri-miRNAs, marking them for recognition and processing by DGCR8 (PubMed:25799998). {ECO:0000250 UniProtKB:Q8C3P7, ECO:0000269 PubMed:22575960, ECO:0000269 PubMed:24284625, ECO:0000269 PubMed:25719671, ECO:0000269 PubMed:25799998, ECO:0000269 PubMed:26321680, ECO:0000269 PubMed:26593424, ECO:0000269 PubMed:9409616}.</p>
Molecular Weight:	65.3 kDa Including tag.
UniProt:	Q86U44

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 gurantee though.
Comment:	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