

Datasheet for ABIN3136603
MTA1 Protein (AA 1-715) (His tag)



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1 Image

Overview

Quantity:	1 mg
Target:	MTA1
Protein Characteristics:	AA 1-715
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MTA1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	<p>MAANMYRVGD YVYFENSSSN PYLIRRIEEL NKTANGNVEA KVVCFYRRRD ISSSLIALAD KHATLSVCYR AGPGADTGEE GEVEEEVENP EMVDLPEKLIK HQLRHRELF L SRQLES LPAT HIRGKCSVTL LNETESLKS Y LEREDFFFYS LVYDPQKQTL LADKGEIRVG NRYQADITDL LKEGEEDGRD QSKLETKVWE AHNPLVDKQI DQFLVVARSV GTFARALDCS SSVRQPSLHM SAAAASRDIT LFHAMDTLHK NIYDISKAIS ALVPQGGPVL CRDEMEEWSA SEANLFEEAL EKYGKDFTDI QQDFLPWKS L TSII EYYMW KTTDRYVQK RLKAAEAESK LKQVYIPNYN KPNNQISAS SVKATVVNGT GTPGQSPGAG RACESCYTTQ SYQWYSWGPP NMQCRLCASC WTYWKKYGG L KMPTRLDGER PGPNNRNMSP HGIPARSSGS PKFAMKTRQA FYLHTTKLTR IARRLCREIL RPWHAARHPY MPINSAAIKA ECTARLPEAS QSPLVLKQVW RKP LEAVLRY LETHPRPPKP DPVKSSSSVL SSLTPAKSAP VINNGSPTIL GKRSYEQHNG VDGNMKKRLL MPSRGLANHG QTRHMGPSRN LLLNGKSYPT KVRLIRGGSL PPVKRRRMNW IDAPDDVFYM ATEETRKIRK LLSSETKRA ARRPYKPIAL RQSALPLRP PPPAPVNDEP IVIED</p>
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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 Mta1 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.
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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: MTA1

Alternative Name: Mta1 ([MTA1 Products](#))

Background: Transcriptional coregulator which can act as both a transcriptional corepressor and coactivator. As a part of the histone-deacetylase multiprotein complex (NuRD), regulates transcription of its targets by modifying the acetylation status of the target chromatin and cofactor accessibility to the target DNA. In conjunction with other components of NuRD, acts as a transcriptional corepressor of BRCA1, ESR1, TFF1 and CDKN1A. Acts as a transcriptional coactivator of BCAS3, PAX5 and SUMO2, independent of the NuRD complex. Stimulates the expression of WNT1 by inhibiting the expression of its transcriptional corepressor SIX3. Plays a role in the inflammatory responses, both as a target and as a component of the NF-kappa-B signaling and regulates a subset of proinflammatory cytokines such as IL1B, MIP2, and TNF. Regulates p53-dependent and -independent DNA repair processes following genotoxic stress. Regulates the stability and function of p53/TP53 by inhibiting its ubiquitination by COP1 and MDM2 thereby regulating the p53-dependent DNA repair. Plays an important role in tumorigenesis, tumor invasion, and metastasis. Plays a role in the regulation of the circadian clock and is essential for the generation and maintenance of circadian rhythms under constant light and for normal entrainment of behavior to light-dark (LD) cycles. Positively regulates the CLOCK-ARNTL/BMAL1 heterodimer mediated transcriptional activation of its own transcription and the transcription of CRY1. Regulates deacetylation of ARNTL/BMAL1 by regulating SIRT1 expression, resulting in derepressing CRY1-mediated transcription repression.

{ECO:0000269|PubMed:17671180, ECO:0000269|PubMed:19805145, ECO:0000269|PubMed:19837670, ECO:0000269|PubMed:20071335, ECO:0000269|PubMed:20519513, ECO:0000269|PubMed:20682799, ECO:0000269|PubMed:21965678, ECO:0000269|PubMed:24089055}.

Molecular Weight: 81.8 kDa Including tag.

UniProt: [Q8K4B0](#)

Pathways: [Chromatin Binding](#)

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

Application Details

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