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Datasheet for ABIN3137123  
**CMTR1 Protein (AA 1-837) (His tag)**

1 Image

Overview

Quantity:	1 mg
Target:	CMTR1
Protein Characteristics:	AA 1-837
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CMTR1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence: MKRRTDPECT APLKKQKRIG ELARHLSSTS DDEPLSSVNH AAKASATSLS GSDSETEGKQ  
 PCSDDFKDAF KADSLVEGTS SRYSMYNSVS QRLMAKMGFR EGEGLGKYSQ GRKDIVETSN  
 QKGRRLGLT LQGFQELNV DWRDEPEPNA CEQVSWFPEC TTEIPDSREM SDWMVVGKRR  
 MVIEDETEFK GEELLHSMLK CKSVFDILDG EEMRRARTRA NPYEMIRGVF FLNRAAMKMA  
 NMDFVFD RMF TNPLDSSGKP LLKESDIDLL YFADVCAGPG GFSEYVLWRK KWHAKGFGMT  
 LKGPNDFKLE DFYSASSELF EPYYGEGGVD GDGDITRPEN INAFRNFVLD NTDRKGVHFV  
 MADGGFSVEG QENLQEILSK QLLLCQFLMA LSVVRTGGHF VCKTFDLFTP FSVGLIYLLY  
 CCFERVCLFK PITSRPANSE RYVVKGLKV GIDDVREYLF SVNIKLNQLR NTESDVNLVV  
 PLMVIKGDHE FNDYMIRSNE SYCSLQIKAL AKIHAFVQDT TLSEPRQAEI RKECLQLWKI  
 PDQARVAPSS SDPKFKFFEL IKD TDINIFS YKPTLLTAKT LEKIRPVLEY RCMVSGSEQK  
 FLLGLGKSQI YTWDGRQSDR WVKLDLKTTEL PRDTLLCVEI VHELKGEKGA QRKISAIHIL  
 DVLVLNGSDV REQHFNQRIQ LAEKFKAVS KPSRPDMNPI RVKEVYRLEE MEKIFVRLEM

KLIKSGSGTP KLSYTGRDDR HFVPTGVYIV RTVNPEWTMG FSKSNNRKFF YNKKTQKSVY  
ALPTESIAPF HTCYY SRLFW EWGDGFHMRD SQKPQDPDKL SKEDVLSFIQ SHNPLGP

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

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Cmtr1 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.

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### 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.

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### Sterility:

0.22 µm filtered

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### Endotoxin Level:

Protein is endotoxin free.

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## Product Details

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Grade: Crystallography grade

## Target Details

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Target: CMTR1

Alternative Name: Cmtr1 ([CMTR1 Products](#))

Background: S-adenosyl-L-methionine-dependent methyltransferase that mediates mRNA cap1 2'-O-ribose methylation to the 5'-cap structure of mRNAs. Methylates the ribose of the first nucleotide of a m(7)GpppG-capped mRNA and small nuclear RNA (snRNA) to produce m(7)GpppRm (cap1). Displays a preference for cap0 transcripts. Cap1 modification is linked to higher levels of translation. May be involved in the interferon response pathway. {ECO:0000250}.

Molecular Weight: 96.6 kDa Including tag.

UniProt: [Q9DBC3](#)

## Application Details

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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

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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)



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