

Datasheet for ABIN3136293

## CMTR2 Protein (AA 1-767) (rho-1D4 tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	CMTR2
Protein Characteristics:	AA 1-767
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CMTR2 protein is labelled with rho-1D4 tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

#### Product Details

Sequence:	<p>MSKRRKLPAR QPACLETFSF DVLNDVSELF AKSFSYRKPL DNEWQLPAPT ESFSCGHLEF  RALLDLKNSL NEVKNLSDK KLDEWHRHTA FTNKAGKIIS HVKKAVNAEL CTQAWCKFQE  ILCSFPLIPQ EAFQSGRLNS LHLCEAPGAF IASLNHYLKS HRFPCEWSWV ANSLNPYHEA  NDNLRMITDD RLMANTLHCW YFGPDNTGDI MTLKYL TGLQ DFLSGMSPIH LVTADGSFDC  QGNPGEQEAL VSSLHYCEAV TALITLGDGG SFVLKMFTLF EHCSVNLMYL LNCSFDQVHV  FKPATSKAGN SEVYVCLRY KGREAVQPLL SRMVLNFGTE MTRKALFPHH VIPKSFLERH  EECCTFFHRY QLETISENIR LFESMGTGEQ ERLNNLRDCA VQYFMQKFQL KPLSRNHWL  KKSNI GCSMN TKWFGQRNKY FKTYNERKMM ETL SWKDKVA KGYFN SWAEE HTVYHPGQNS  LLEGTASSLE YQSWQVLE GK KLPKVKCSPF CDGEILKTLN EAIEKSLGEA LSVDKAVSSK  QQYRCCPVFS EESVLS ELLR LTKCLPDEQG AEPSGPVKCL LVGSPA VCDL QMPAPLEIQL  VESVELTAFS CSLLHDG DPA YQHLFLDCLL HSLRRLHRGD VMVLPILSCF TRFMAGLTFV  LHGCFR FITF SCPTSLEPLR TCAVLLCIGY QNLPDAVFQF LQNVHDLLSK LLHPSAPRQI</p>
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LQFLPMEALL QGTLDFLWD LNAAIAKRHL HLIQGERDQ AIGSLEL

**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 Cmtr2 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:

Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:

1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
  2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.
  3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. 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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## Product Details

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Endotoxin Level: Protein is endotoxin-free.

Grade: Crystallography grade

## Target Details

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Target: CMTR2

Alternative Name: Cmtr2 ([CMTR2 Products](#))

Background: S-adenosyl-L-methionine-dependent methyltransferase that mediates mRNA cap2 2'-O-ribose methylation to the 5'-cap structure of mRNAs. Methylates the ribose of the second nucleotide of a m(7)GpppG-capped mRNA and small nuclear RNA (snRNA) (cap0) to produce m(7)GpppRmpNm (cap2). Recognizes a guanosine cap on RNA independently of its N(7) methylation status. Display cap2 methylation on both cap0 and cap1. Displays a preference for cap1 RNAs. {ECO:0000250}.

Molecular Weight: 88.3 kDa Including tag.

UniProt: [Q8BWQ4](#)

## 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.

Handling

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Expiry Date: Unlimited (if stored properly)

Images

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