

Datasheet for ABIN3111295

**ADCY5 Protein (AA 1-1261) (rho-1D4 tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	ADCY5
Protein Characteristics:	AA 1-1261
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADCY5 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

## Product Details

Sequence:	MSGKSVSPP GYAAQKTAAP APRGGPEHRS AWGEADSRAN GYPHAPGGSA RGSTKKPGGA VTPQQQQLRA SRWRSDDDDD PPLSGDDPLA GGFDFSFRSK SAWQERGGDD CGRGSRRQRR GAASGGSTRA PPAGGGGGSA AAAASAGGTE VRPRSVEVGL EERRGKGRAA DELEAGAVEG GEGSGDGGSS ADSGSGAGPG AVLSLGACCL ALLQIFRSKK FPSDKLERLY QRYFFRLNQS SLTMLMAVLV LVCLVMLAFH AARPPLQLPY LAVLAAVGV ILIMAVLCNR AAFHQDHMGL ACYALIAVVL AVQVVGLLLP QPRSASEGIW WTVFFIYTIY TLLPVRMRAA VLSGVLLSAL HLAIALRTNA QDQFLKQLV SNVLIFSCTN IVGVCTHYPA EVSQRQAFQE TRECIQARLH SQRENQQQER LLLSVLPRHV AMEMKADINA KQEDMMFHKI YIQKHDNVS I LFADIEGFTS LASQCTAQL VMTLNELFAR FDKLAAENHC LRIKILGDCY YCVSGLPEAR ADHAHCCVEM GMDMIEAISL VREVTGVNVN MRVGIHSGRV HCGVLGLRKW QFDVWSNDVT LANHMEAGGK AGRIHITKAT LNYLNGDYEV EPGCGGERNA YLKEHSIETF LILRCTQKRK EEKAMIAKMN RQRTNSIGHN PPHWGAERP YNHLGGNQVS KEMKRMGFED PKDKNAQESA NPEDEVDEFL
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GRAIDARSID RLRSEHVRKF LLTFREPDLE KKYSKQVDDR FGAYVACASL VFLFICFVQI  
TIVPHSIFML SFYLTCSLLL TLVVFVSVIY SCVKLFPSPL QTLSRKIVRS KMNSTLVGVF  
TITLVFLAAF VNMFTCNSTRD LLGCLAQEHN ISASQVNACH VAESAVNYSL GDEQGFCGSP  
WPNCNFPEYF TYSVLLSLLA CSVFLQISCI GKLVLMLAIE LIYVLIVEVP GVTLFDNADL  
LVTANAIDFF NNGTSQCPEH ATKVALKVVT PIIISVFLA LYLHAQQVES TARLDFLWKL  
QATEEKEEME ELQAYNRRL HNILPKDVAA HFLARERRND ELYYQSCECV AVMFASIANF  
SEFYVELEAN NEGVECLRL NEIADFDEI ISEDRFRQLE KIKTIGSTYM AASGLNDSTY  
DKVGKTHIKA LADFAMKLMD QMKYINEHSF NNFQMKIGLN IGPVVAGVIG ARKPQYDIWG  
NTVNVASRMD STGVPDRIQV TTDYQVLAA NTYQLECRGV VKVKGKGEMM TYFLNGGPPL S

**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.
- Human ADCY5 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 fractionated by ultracentrifugation and subsequently solubilized with

## Product Details

- different detergents (detergent screen). Samples are analyzed by Western blot.
- 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.
  - 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.

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:	ADCY5
Alternative Name:	ADCY5 ( <a href="#">ADCY5 Products</a> )
Background:	Catalyzes the formation of the signaling molecule cAMP in response to G-protein signaling (PubMed:15385642, PubMed:26206488, PubMed:24700542). Mediates signaling downstream of ADRB1 (PubMed:24700542). Regulates the increase of free cytosolic Ca(2+) in response to increased blood glucose levels and contributes to the regulation of Ca(2+)-dependent insulin secretion (PubMed:24740569). {ECO:0000269 PubMed:15385642, ECO:0000269 PubMed:24700542, ECO:0000269 PubMed:24740569, ECO:0000269 PubMed:26206488}.
Molecular Weight:	140.1 kDa Including tag.
UniProt:	<a href="#">O95622</a>
Pathways:	<a href="#">EGFR Signaling Pathway</a> , <a href="#">Neurotrophin Signaling Pathway</a> , <a href="#">Thyroid Hormone Synthesis</a> , <a href="#">cAMP Metabolic Process</a> , <a href="#">Myometrial Relaxation and Contraction</a> , <a href="#">G-protein mediated Events</a> , <a href="#">Interaction of EGFR with phospholipase C-gamma</a>

## 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.
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## Application Details

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