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# ADCY8 Protein (AA 1-1251) (rho-1D4 tag)





# Overview

Quantity:	1 mg
Target:	ADCY8
Protein Characteristics:	AA 1-1251
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADCY8 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

## **Product Details**

Sequence:

MELSDVRCLT GSEELYTIHP TPPAGDGRSA SRPQRLLWQT AVRHITEQRF IHGHRGGSGS
GSGGSGKASD PAGGGPNHHA PQLSGDSALP LYSLGPGERA HSTCGTKVFP ERSGSGSASG
SGGGGDLGFL HLDCAPSNSD FFLNGGYSYR GVIFPTLRNS FKSRDLERLY QRYFLGQRRK
SEVVMNVLDV LTKLTLLVLH LSLASAPMDP LKGILLGFFT GIEVVICALV VVRKDTTSHT
YLQYSGVVTW VAMTTQILAA GLGYGLLGDG IGYVLFTLFA TYSMLPLPLT WAILAGLGTS
LLQVILQVVI PRLAVISINQ VVAQAVLFMC MNTAGIFISY LSDRAQRQAF LETRRCVEAR
LRLETENQRQ ERLVLSVLPR FVVLEMINDM TNVEDEHLQH QFHRIYIHRY ENVSILFADV
KGFTNLSTTL SAQELVRMLN ELFARFDRLA HEHHCLRIKI LGDCYYCVSG LPEPRQDHAH
CCVEMGLSMI KTIRYVRSRT KHDVDMRIGI HSGSVLCGVL GLRKWQFDVW SWDVDIANKL
ESGGIPGRIH ISKATLDCLN GDYNVEEGHG KERNEFLRKH NIETYLIKQP EDSLLSLPED
IVKESVSSSD RRNSGATFTE GSWSPELPFD NIVGKQNTLA ALTRNSINLL PNHLAQALHV
QSGPEEINKR IEHTIDLRSG DKLRREHIKP FSLMFKDSSL EHKYSQMRDE VFKSNLVCAF

IVLLFITAIQ SLLPSSRVMP MTIQFSILIM LHSALVLITT AEDYKCLPLI LRKTCCWINE TYLARNVIIF
ASILINFLGA ILNILWCDFD KSIPLKNLTF NSSAVFTDIC SYPEYFVFTG VLAMVTCAVF
LRLNSVLKLA VLLIMIAIYA LLTETVYAGL FLRYDNLNHS GEDFLGTKEV SLLLMAMFLL
AVFYHGQQLE YTARLDFLWR VQAKEEINEM KELREHNENM LRNILPSHVA RHFLEKDRDN
EELYSQSYDA VGVMFASIPG FADFYSQTEM NNQGVECLRL LNEIIADFDE LLGEDRFQDI
EKIKTIGSTY MAVSGLSPEK QQCEDKWGHL CALADFSLAL TESIQEINKH SFNNFELRIG
ISHGSVVAGV IGAKKPQYDI WGKTVNLASR MDSTGVSGRI QVPEETYLIL KDQGFAFDYR
GEIYVKGISE QEGKIKTYFL LGRVQPNPFI LPPRRLPGQY SLAAVVLGLV QSLNRQRQKQ
LLNENNNTGI IKGHYNRRTL LSPSGTEPGA QAEGTDKSDL P

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.
- Human ADCY8 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 receival 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:

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

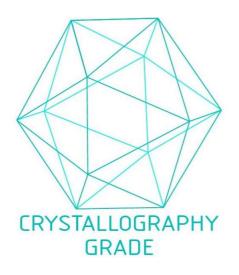
1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with

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	<ul> <li>different detergents (detergent screen). Samples are analyzed by Western blot.</li> <li>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.</li> <li>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.</li> </ul>
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:	ADCY8
Alternative Name:	ADCY8 (ADCY8 Products)
Background:	This is a membrane-bound, calcium-stimulable adenylyl cyclase. May be involved in learning, in memory and in drug dependence (By similarity). {ECO:0000250}.
Molecular Weight:	141.3 kDa Including tag.
UniProt:	P40145
Pathways:	EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Thyroid Hormone Synthesis, cAMP Metabolic Process, Myometrial Relaxation and Contraction, G-protein mediated Events, Interaction of EGFR with phospholipase C-gamma
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:	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