

Datasheet for ABIN7563398

## ADCY7 Protein (AA 1-1099) (His tag)



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### Overview

Quantity:	1 mg
Target:	ADCY7 (Adcy7)
Protein Characteristics:	AA 1-1099
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADCY7 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Purpose:	Custom-made recombinat Adcy7 Protein expressed in mammalian cells.
Sequence:	<p>MPAKGRYFLN EGDEGPDQAA LYEKYRLTSL HGPLLLLLLLL VAAATCIALI SIAFSHEDLR</p> <p>RHQVVLGTAF LMLTLFVALY VLVYVECLVQ RWLRALALLT WACLMVLGSV LMWDSLENEA</p> <p>HAWEQVPFFL FVVFVYALL PLSRRAIVA GVTSTVSHLL VFGAVTRAFQ TSMSSTQLGL</p> <p>QLLANAVILL GGNFTGAFHK HQLQDASRD LFIYTVKCIQI RRLRVEKQK QENLLSVLP</p> <p>AHISMGMKLA IIERLKEGGD RHYMPDNNFH SLYVKRHQNV SILYADIVGF TRLASDCSPK</p> <p>ELVVVLNELL GKFDQIAKAN ECMRIKILGD CYYCVSGLPV SLPTHARNVCV KMGLDICEAI</p> <p>KQVREATGVD ISMRVGIHSG NVLCGVIGLR KWQYDVWSHD VSLANRMEAA GVPGRVHITE</p> <p>ATLNHLDKAY EVEDGHGEQR DPYLKEMNIR TYLVIDPRSQ QPPPPSHHLS KPKGDATLKM</p> <p>RASVRVTRYL ESWGAAAPFA HLNHRESVSS SETPISNGRR QKAIPLRRHR APDRSASPKG</p> <p>RLEDDCDDDEM LSAIEGLSST RPCCSKSDDF HTFGPIFLEK GFEREYRLVP IPRARYDFAC</p> <p>ASLVFVCILL VHLLVMPRMA TLGVSFGLVA CLLGLVLSFC FATEFSRCFP SRSTLQAISE</p>

SVETQPLVRL VLVVLTVGSL LTVAIINMPL TLNPGPEQPG DNKTSPLAAQ NRVGTPCELL  
PYYTCSCILG FIACSVFLRM SLELKAMLLT VALVAYLLLF NLSPCWHVSG NSTETNGTQR  
TRLLLSDAQS MPSHTLAPGA RETAPSPSYL ERDLKIMVNF YLILFYATLI LLSRQIDYYC  
RLDCLWKKKF KKEHEEFETM ENVNRLLEN VLP AHVAAHF IGDKAAEDWY HQSYDCVCVM  
FASVPDFKVF YTECDVNKEG LECLRLLEI IADFDELLK PKFSGVEKIK TIGSTYMAAA  
GLSAPSGHEN QDLERKHHVHI GVLVEFSMAL MSKLDGINRH SFNSFRLRVG INHGPVIAGV  
IGARKPQYDI WGNTVNVASR MESTGELGKI QVTEETCTIL QGLGYSCECR GLINVKGKGE  
LRTYFVCTDT AKFQGLGLN **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

Characteristics:

Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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 try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

Grade:

custom-made

Target Details

Target:

ADCY7 (Adcy7)

Alternative Name:

Adcy7 ([Adcy7 Products](#))

Background:

Adenylate cyclase type 7 (EC 4.6.1.1) (ATP pyrophosphate-lyase 7) (Adenylate cyclase type VII) (Adenylyl cyclase 7),FUNCTION: Catalyzes the formation of cAMP in response to activation of G protein-coupled receptors (Probable). Functions in signaling cascades activated namely by

## Target Details

thrombin and sphingosine 1-phosphate and mediates regulation of cAMP synthesis through synergistic action of the stimulatory G alpha protein with GNA13 (PubMed:18541530). Also, during inflammation, mediates zymosan-induced increase intracellular cAMP, leading to protein kinase A pathway activation in order to modulate innate immune responses through heterotrimeric G proteins G(12/13) (PubMed:23178822). Functions in signaling cascades activated namely by dopamine and C5 alpha chain and mediates regulation of cAMP synthesis through synergistic action of the stimulatory G protein with G beta:gamma complex (By similarity). Functions, through cAMP response regulation, to keep inflammation under control during bacterial infection by sensing the presence of serum factors, such as the bioactive lysophospholipid (LPA) that regulate LPS-induced TNF-alpha production. However, it is also required for the optimal functions of B and T cells during adaptive immune responses by regulating cAMP synthesis in both B and T cells (PubMed:20505140). {ECO:0000250|UniProtKB:P51828, ECO:0000269|PubMed:18541530, ECO:0000269|PubMed:20505140, ECO:0000269|PubMed:23178822, ECO:0000305|PubMed:18541530, ECO:0000305|PubMed:23178822, ECO:0000305|PubMed:23229509}.

Molecular Weight: 122.7 kDa

UniProt: [P51829](#)

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.

Restrictions: For Research Use only

## Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Handling

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Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months