

# Datasheet for ABIN7563558

# RGS14 Protein (AA 1-547) (His tag)



# Overview

Quantity:	1 mg
Target:	RGS14
Protein Characteristics:	AA 1-547
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RGS14 protein is labelled with His tag.

Product Details	
Purpose:	Custom-made recombinant Rgs14 Protein expressed in mammalian cells.
Sequence:	MPGKPKHLGV PNGRMVLAVS DGELTSTAGS QAQGEGRGSS LSIHSLPSGP SSPFSTEEQP
	VASWAQSFER LLQDPRGLAY FTEFLKKEFS AENVTFWKAC ERFQQIPASD TKQLAQEAHN
	IYHEFLSSQA LSPVNIDRQA WLSEEVLAQP RPDMFRAQQL QIFNLMKFDS YARFVKSPLY
	QECLLAEAEG RPLREPGSSH LGSPDTARKK PKLKPGKSLP LGVEELGQLP LAEGPCGRPL
	RKSFRREMTG GAMNSALRRE SQGSLNSSAS LDLGFLAFVS SKSESHRKSL GSGESESESR
	PGKYCCVYLP DGTASLALAR PGLTIRDMLA GICEKRGLSL PDIKVYLVGN EQKALVLDQD
	CTVLADQEVR LENRITFQLE LVGLERVVRI SAKPTKRLQE ALQPILAKHG LSLDQVVLHR
	PGEKQPMDLE NPVSSVASQT LVLDTPPDAK MSEARSISPC RSQGCLPRTQ TKDSHLPPSS
	SSLLVEDASS STGNRQTCDI EGLVELLNRV QSSGAHDQRG LLRKEDLVLP EFLQLPSQRP
	GSREAPP 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.

#### Product Details

Product Details	
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different
	isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits:
	<ul> <li>Made to order protein - from design to production - by highly experienced protein experts.</li> <li>Protein expressed in mammalian cells and purified in one-step affinity chromatography</li> <li>The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.</li> </ul>
	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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made
Target Details	
Target:	RGS14
Alternative Name:	Rgs14 (RGS14 Products)
Background:	Regulator of G-protein signaling 14 (RGS14) (RAP1/RAP2-interacting protein)
	(RPIP1),FUNCTION: Regulates G protein-coupled receptor signaling cascades. Inhibits signal
	transduction by increasing the GTPase activity of G protein alpha subunits, thereby driving them
	into their inactive GDP-bound form. Besides, modulates signal transduction via G protein alpha
	subunits by functioning as a GDP-dissociation inhibitor (GDI). Has GDI activity on G(i) alpha

(RPIP1),FUNCTION: Regulates G protein-coupled receptor signaling cascades. Inhibits signal transduction by increasing the GTPase activity of G protein alpha subunits, thereby driving them into their inactive GDP-bound form. Besides, modulates signal transduction via G protein alpha subunits by functioning as a GDP-dissociation inhibitor (GDI). Has GDI activity on G(i) alpha subunits GNAI1 and GNAI3, but not on GNAI2 and G(o)-alpha subunit GNAO1. Has GAP activity on GNAI0, GNAI2 and GNAI3. May act as a scaffold integrating G protein and Ras/Raf MAPkinase signaling pathways. Inhibits platelet-derived growth factor (PDGF)-stimulated ERK1/ERK2 phosphorylation, a process depending on its interaction with HRAS and that is reversed by G(i) alpha subunit GNAI1. Acts as a positive modulator of microtubule polymerisation and spindle organization through a G(i)-alpha-dependent mechanism. Plays a

role in cell division, required for completion of the first mitotic division of the embryo. Involved in visual memory processing capacity, when overexpressed in the V2 secondary visual cortex area. Involved in hippocampal-based learning and memory, acts as a suppressor of synaptic plasticity in CA2 neurons. Required for the nerve growth factor (NGF)-mediated neurite outgrowth. Involved in stress resistance. {EC0:0000269|PubMed:10926822, EC0:0000269|PubMed:15112653, EC0:0000269|PubMed:15525537, EC0:0000269|PubMed:15917656, EC0:0000269|PubMed:16246175, EC0:0000269|PubMed:20837545}.

Molecular Weight: 59.8 kDa

UniProt: P97492

Pathways: Myometrial Relaxation and Contraction, Regulation of G-Protein Coupled Receptor Protein Signaling, Platelet-derived growth Factor Receptor Signaling

## **Application Details**

Application Notes:	We expect the protein to work for functional studies. 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.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months