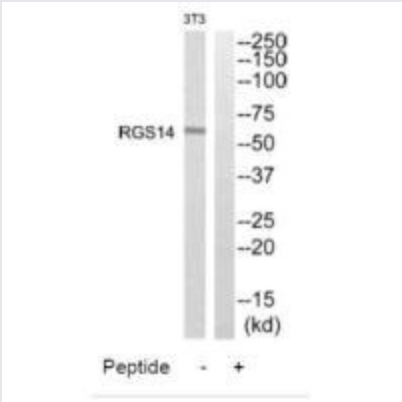
RGS14 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	RGS14, Polyclonal Antibody
Full Product Name	RGS14 Antibody
Product Gene Name	anti-RGS14 antibody
Product Synonym Names	regulator of G-protein signaling 14; RGSE
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid; Rabbit IgG In Phosphate Buffered Saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% Sodium Azide and 50% Glycerol.
Purity/Purification	Affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Preparation and Storage	Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze.
Molecular Weight	61,447 Da
Chromosome Location	Chromosome: 5; NC_000005.9 (176784844..176799599). Location: 5q35.3
OMIM	602513
3D Structure	ModBase 3D Structure for O43566
Immunogen	Synthesized peptide derived from internal of human RGS14.
Immunogen Species	Human
Conjugate	Non-conjugated
Product Categories/Family for anti-RGS14 antibody	Signal Transduction
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-RGS14 antibody	ELISA (EIA), Western Blot (WB)
Application Notes for anti-RGS14 antibody	WB: 1:500-1:3000
Related Product Information for anti-RGS14 antibody	MBS7131579 is an antibody targeting RGS14. Also known as RGS14 Antibody. Reactive in Human. Host: Rabbit.
Other Notes	Small volumes of anti-RGS14 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-RGS14 antibody
Western blot analysis of extracts from NIH/3T3 cells, using RGS14 antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RGS14. It may not necessarily be applicable to this product.

NCBI GI #	21361304
NCBI GeneID	10636
NCBI Accession #	NP_006471.2
UniProt Primary Accession #	O43566
UniProt Secondary Accession #	O43565; Q506M1; Q6ZWA4; Q8TD62
UniProt Related Accession #	O43566
GenBank Nucleotide #	NM_006480.4
NCBI Official Full Name	regulator of G-protein signaling 14
NCBI Official Synonym Full Names	regulator of G-protein signaling 14
NCBI Official Symbol	RGS14
UniProt Protein Name	Regulator of G-protein signaling 14
Protein Family	Regulator of G-protein signaling
UniProt Gene Name	RGS14
UniProt Synonym Gene Names	RGS14
UniProt Entry Name	RGS14_HUMAN
NCBI Protein Information	regulator of G-protein signaling 14; regulator of G-protein signalling 14
NCBI Summary for RGS14	This gene encodes a member of the regulator of G-protein signaling family. This protein contains one RGS domain, two Raf-like Ras-binding domains (RBDs), and one GoLoco domain. The protein attenuates the signaling activity of G-proteins by binding, through its GoLoco domain, to specific types of activated, GTP-bound G alpha subunits. Acting as a GTPase activating protein (GAP), the protein increases the rate of conversion of the GTP to GDP. This hydrolysis allows the G alpha subunits to bind G beta/gamma subunit heterodimers, forming inactive G-protein heterotrimers, thereby terminating the signal. Alternate transcriptional splice variants of this gene have been observed but have not been thoroughly characterized. [provided by RefSeq, Jul 2008]

UniProt Comments for RGS14	RGS14: Acts as a regulator of G protein signaling (RGS). Modulates G protein alpha subunits nucleotide exchange and hydrolysis activities by functioning either as a GTPase-activating protein (GAP), thereby driving G protein alpha subunits into their inactive GDP-bound form, or as a GDP-dissociation inhibitor (GDI). Confers GDI activity on G(i) alpha subunits GNAI1 and GNAI3, but not G(o) alpha subunit GNAO1 and G(i) alpha subunit GNAI2. Confers GAP activity on G(o) alpha subunit GNAI0 and G(i) alpha subunits 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 HRAS1 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. Probably required for the nerve growth factor (NGF)-mediated neurite outgrowth. May be involved in visual memory processing capacity and hippocampal-based learning and memory. 4 isoforms of the human protein are produced by alternative splicing. Protein type: GAPs; GAPs, RGS Chromosomal Location of Human Ortholog: 5q35.3 Cellular Component: spindle pole; centrosome; microtubule; PML body; dendrite; postsynaptic density; dendritic spine; nuclear body; postsynaptic membrane; cytoplasm; plasma membrane; spindle; nucleus; cell junction Molecular Function: receptor signaling complex scaffold activity; microtubule binding; GDP-dissociation inhibitor activity; receptor signaling protein activity; GTPase activating protein binding; G-protein alpha-subunit binding; protein kinase binding; GTPase activator activity Biological Process: regulation of transcription in response to stress; negative regulation of MAP kinase activity; mitosis; zygote asymmetric cell division; positive regulation of neurogenesis; negative regulation of synaptic plasticity; platelet-derived growth factor receptor signaling pathway; nucleocytoplasmic transport; learning; spindle organization and biogenesis; chromosome segregation; long-term memory; cell division; visual learning; response to oxidative stress; regulation of G-protein coupled receptor protein signaling pathway; positive regulation of GTPase activity
Research Articles on RGS14	**1.** RGS14 can form complexes with GPCRs in cells that are dependent on Galpha(i/o) and these RGS14.Galpha(i1).GPCR complexes may be substrates for other signaling partners such as Ric-8A
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