

RGS7 Rabbit pAb

Catalog # AP99777

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P49802
Other Accession	P49802
Reactivity	Mouse
Predicted	Rat, Human, Rabbit, Zebrafish, Chicken, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	57668
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RGS7
Epitope Specificity	221-320/495
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 ubiquitin-like domain.
SUBUNIT	Component of the BAT3 complex, at least composed of BAG6/BAT3, UBL4A and GET3/TRC35. Interacts with AIFM1, CTCFL, HSPA2 and p300/EP300. Interacts with ricin A chain. Interacts with L.pneumophila proteins Lpg2160 and LegU1. Interacts with NCR3. Interacts (via ubiquitin-like domain) with RNF126; required for BAG6-dependent ubiquitination of proteins mislocalized to the cytosol.
Post-translational modifications	Cleavage by caspase-3 releases a C-terminal peptide that plays a role in ricin-induced apoptosis. In case of infection by L.pneumophila, ubiquitinated by the SCF(LegU1) complex.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	RGS7 inhibits signal transduction by increasing the GTPase activity of G protein alpha subunits thereby driving them into their inactive GDP bound form. Activity on G(o) alpha is specifically enhanced by the RGS6/GNG5 dimer. RGS7 may play a role in synaptic vesicle exocytosis and may play an important role in the rapid regulation of neuronal excitability and the cellular responses to short lived stimulations.

Additional Information

Gene ID	6000
Other Names	RGS7_BOVIN; RGS7; RGS7_HUMAN; RGS7_MOUSE; RGS7_RAT; regulator of G protein signaling 7; regulator of G-protein signalling 7; regulator of G-protein signaling 7
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
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Protein Information

Name	RGS7
Function	GTPase activator component of the RGS7-GNB5 complex that regulates G protein-coupled receptor signaling cascades (PubMed: 10521509 , PubMed: 10862767 , PubMed: 31189666). The RGS7-GNB5 complex acts as an inhibitor signal transduction by promoting the GTPase activity of G protein alpha subunits, such as GNAO1, thereby driving them into their inactive GDP-bound form (PubMed: 10521509 , PubMed: 10862767). May play a role in synaptic vesicle exocytosis (Probable) (PubMed: 12659861). Glycine-dependent regulation of the RGS7- GNB5 complex by GPR158 affects mood and cognition via its ability to regulate neuronal excitability in L2/L3 pyramidal neurons of the prefrontal cortex (By similarity). Modulates the activity of potassium channels that are activated by GNAO1 in response to muscarinic acetylcholine receptor M2/CHRM2 signaling (PubMed: 15897264).
Cellular Location	Cytoplasm, cytosol. Cytoplasm Cell membrane. Membrane; Peripheral membrane protein; Cytoplasmic side. Note=Interaction with PKD1 promotes location at the cell membrane (PubMed:10339594). Interaction with RGS7BP promotes location at the cell membrane (PubMed:15897264)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.