

**RGS7 Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP12015b****Specification**

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**RGS7 Antibody (C-term) Blocking peptide - Product Information**Primary Accession [P49802](#)**RGS7 Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 6000**Other Names**

Regulator of G-protein signaling 7, RGS7, RGS7

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**RGS7 Antibody (C-term) Blocking peptide - Protein Information****Name** RGS7**Function**

GTPase activator component of the RGS7-GNB5 complex that regulates G protein-coupled receptor signaling cascades (PubMed:<a href="http://www.uniprot.org/citations/10521509" target="\_blank">10521509</a>, PubMed:<a href="http://www.uniprot.org/citations/10862767" target="\_blank">10862767</a>, PubMed:<a href="http://www.uniprot.org/citations/31189666" target="\_blank">31189666</a>). 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:<a href="http://www.uniprot.org/citations/10521509" target="\_blank">10521509</a>, PubMed:<a href="http://www.uniprot.org/citations/10862767" target="\_blank">10862767</a>). May play a role in synaptic vesicle exocytosis (PubMed:<a href="http://www.uniprot.org/citations/12659861" target="\_blank">12659861</a>) (Probable). 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:<a href="http://www.uniprot.org/citations/15897264" target="\_blank">15897264</a>).

**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)

### **RGS7 Antibody (C-term) Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

### **RGS7 Antibody (C-term) Blocking peptide - Images**

### **RGS7 Antibody (C-term) Blocking peptide - Background**

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. May play a role in synaptic vesicle exocytosis. May play important role in the rapid regulation of neuronal excitability and the cellular responses to short-lived stimulations (By similarity).

### **RGS7 Antibody (C-term) Blocking peptide - References**

Bailey, S.D., et al. Diabetes Care (2010) In press :Wang, J., et al. Carcinogenesis (2010) In press :Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)McCauley, J.L., et al. Genes Immun. 10(7):624-630(2009)