

**ADCY7 Antibody (Center) Blocking Peptide**  
Synthetic peptide  
Catalog # BP9389c**Specification**

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**ADCY7 Antibody (Center) Blocking Peptide - Product Information**Primary Accession [P51828](#)**ADCY7 Antibody (Center) Blocking Peptide - Additional Information**

Gene ID 113

**Other Names**

Adenylate cyclase type 7, ATP pyrophosphate-lyase 7, Adenylate cyclase type VII, Adenylyl cyclase 7, ADCY7, KIAA0037

**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.

**ADCY7 Antibody (Center) Blocking Peptide - Protein Information**Name ADCY7 ([HGNC:238](#))**Function**

Catalyzes the formation of cAMP in response to activation of G protein-coupled receptors (Probable). Functions in signaling cascades activated namely by thrombin and sphingosine 1-phosphate and mediates regulation of cAMP synthesis through synergistic action of the stimulatory G alpha protein with GNA13 (PubMed: [18541530](http://www.uniprot.org/citations/18541530), PubMed: [23229509](http://www.uniprot.org/citations/23229509)). 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) (By similarity). 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 (PubMed: [23229509](http://www.uniprot.org/citations/23229509), PubMed: [23842570](http://www.uniprot.org/citations/23842570)). 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 (By similarity).

**Cellular Location**

Membrane; Multi-pass membrane protein.

**ADCY7 Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**ADCY7 Antibody (Center) Blocking Peptide - Images****ADCY7 Antibody (Center) Blocking Peptide - Background**

ADCY7 encodes a membrane-bound adenylate cyclase that catalyses the formation of cyclic AMP from ATP and is inhibitable by calcium. The product of this gene is a member of the adenyl cyclase class-4/guanylyl cyclase enzyme family that is characterized by the presence of twelve membrane-spanning domains in its sequences.

**ADCY7 Antibody (Center) Blocking Peptide - References**

Townsend, P.D., et al. J. Biol. Chem. 284(2):784-791(2009)Tabakoff, B., et al. BMC Biol. 7, 70 (2009)  
:jiang, L.I., et al. J. Biol. Chem. 283(34):23429-23439(2008)Kou, J., et al. Alcohol. Clin. Exp. Res. 31(9):1467-1472(2007)Hines, L.M., et al. J. Neurosci. 26(48):12609-12619(2006)