

**Anti-Adenylate Cyclase 7 Antibody**  
**Rabbit polyclonal antibody to Adenylate Cyclase 7**  
**Catalog # AP61466****Specification**

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**Anti-Adenylate Cyclase 7 Antibody - Product Information**

Application	WB, IF
Primary Accession	<a href="#">P51828</a>
Other Accession	<a href="#">P51829</a>
Reactivity	Human, Mouse, Monkey, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	120308

**Anti-Adenylate Cyclase 7 Antibody - Additional Information****Gene ID** 113**Other Names**

KIAA0037; Adenylate cyclase type 7; ATP pyrophosphate-lyase 7; Adenylate cyclase type VII; Adenylyl cyclase 7

**Target/Specificity**

Recognizes endogenous levels of Adenylate Cyclase 7 protein.

**Dilution**WB~~WB (1/500 - 1/1000), IH (1/50 - 1/200), IF/IC (1/50 - 1/200)  
IF~~WB (1/500 - 1/1000), IH (1/50 - 1/200), IF/IC (1/50 - 1/200)**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-Adenylate Cyclase 7 Antibody - 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:<a href="http://www.uniprot.org/citations/18541530" target="\_blank">18541530</a>, PubMed:<a href="http://www.uniprot.org/citations/23229509" target="\_blank">23229509</a>). 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:<a href="http://www.uniprot.org/citations/23229509" target="\_blank">23229509</a>, PubMed:<a href="http://www.uniprot.org/citations/23842570" target="\_blank">23842570</a>). 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

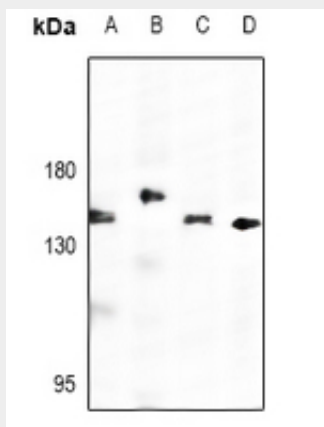
Membrane; Multi-pass membrane protein.

### Anti-Adenylate Cyclase 7 Antibody - Protocols

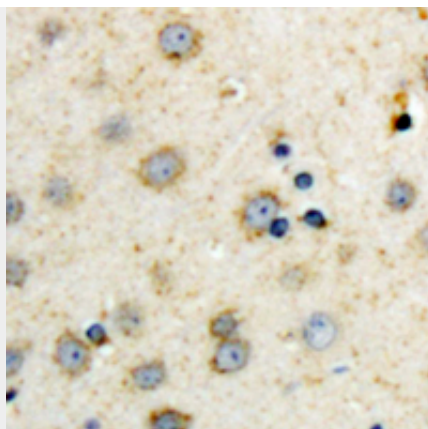
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

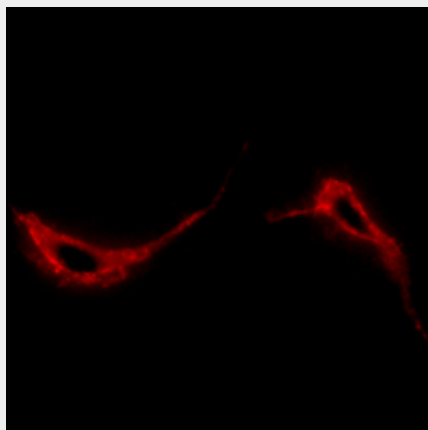
### Anti-Adenylate Cyclase 7 Antibody - Images



Western blot analysis of Adenylate Cyclase 7 expression in BV2 (A), SHSY5Y (B), Panc1 (C), HEK293T (D) whole cell lysates.



Immunohistochemical analysis of Adenylate Cyclase 7 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Adenylate Cyclase 7 staining in NIH-3T3 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a Alexa Fluor 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

#### **Anti-Adenylate Cyclase 7 Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Adenylate Cyclase 7. The exact sequence is proprietary.