

**DATASHEET**

**Adenylate Cyclase 7 Rabbit Polyclonal Antibody**

CAT. NO. APA11554

**KEY FEATURES**

|               |   |               |                     |
|---------------|---|---------------|---------------------|
| Target        | Adenylate Cyclase 7   | Source / Host | Rabbit              |
| Reactivity    | Human, Mouse, Bovine, Monkey  | Clonality     | Polyclonal          |
| Applications  | WB, IHC, IF/ICC   | Conjugation   | Unconjugated        |
| Form / Buffer | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |               | Storage<br>at -20°C |

**BACKGROUND**

Adenylate cyclase that mediates formation of both cyclic AMP (cAMP) and cyclic di-AMP (c-di-AMP) and cyclic di-AMP (c-di-AMP) . Acts as a key mediator of G protein-coupled receptor signaling by catalyzing the formation of cAMP downstream of G protein-coupled receptors . Functions in G protein-coupled receptor signaling cascades activated by thrombin, sphingosine 1-phosphate, dopamine and anaphylatoxin C5a . Mediates regulation of cAMP synthesis through synergistic action of the G alpha protein G(s) (GNAS) with G(13) (GNA13) . Also involved in inflammation by acting as a diadenylate cyclase that catalyzes the condensation of 2 ATP molecules into c-di-AMP .

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

|        |                |
|--------|----------------|
| WB     | 1:500 - 1:1000 |
| IHC    | 1:50 - 1:200   |
| IF/ICC | 1:50 - 1:200   |

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

|                   |  |
|-------------------|--|
| Description       | Rabbit polyclonal antibody to Adenylate Cyclase 7  |
| Specificity       | Recognizes endogenous levels of Adenylate Cyclase 7 protein.   |
| Antibody Type     | Primary antibody   |
| Immunogen         | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Adenylate Cyclase 7. The exact sequence is proprietary. |
| Purification      | The antibody was purified by immunogen affinity chromatography.  |
| Molecular Weight  | Predicted: 120 kD; Observed: 140 kD  |
| Form/Buffer       | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.  |
| Alternative Names | KIAA0037; Adenylate cyclase type 7; ATP pyrophosphate-lyase 7; Adenylate cyclase type VII; Adenylyl cyclase 7                                      |
| Gene Symbol       | ADCY7  |
| Entrez Gene       | 113(Human); 11513(Mouse)   |
| SwissProt         | P51828(Human); P51829(Mouse)   |

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

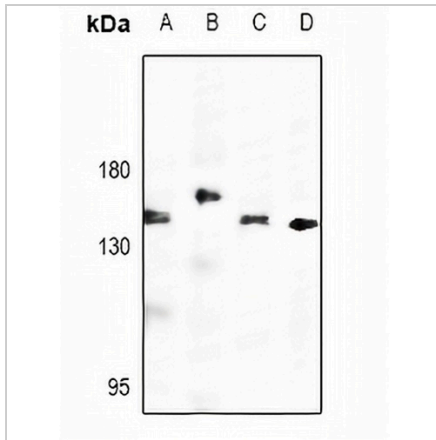
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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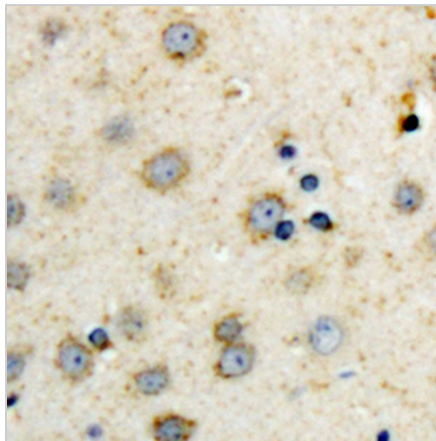
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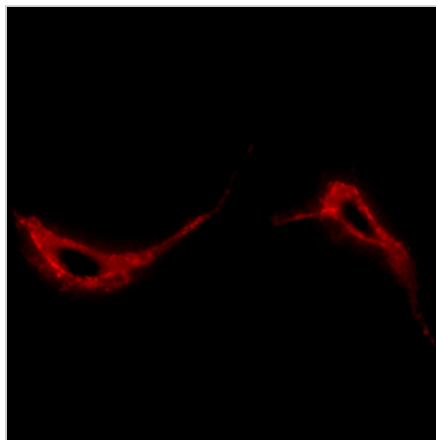
**DATA**



Western blot analysis of Adenylate Cyclase 7 expression in BV2 (A), SHSY5Y (B), Panc1 (C), HEK293T (D) whole cell lysates. (Predicted band size: 120 kD; Observed band size: 140 kD)



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.

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.