10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# Anti-Adenylate Cyclase 1 Antibody

Catalog # AP50964

## Product Information

| | |
|---|---|
| **Application** | WB, IHC, IF/IC |
| **Primary Accession** | Q08828 |
| **Reactivity** | Human, Mouse, Rat, Bovine |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 123440 |

## Additional Information

| | |
|---|---|
| **Gene ID** | 107 |
| **Other Names** | Adenylate cyclase type 1; ATP pyrophosphate-lyase 1; Adenylate cyclase type I; Adenylyl cyclase 1; Ca(2+)/calmodulin-activated adenylyl cyclase |
| **Target/Specificity** | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Adenylate Cyclase 1. The exact sequence is proprietary. |
| **Dilution** | WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A |
| **Format** | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |
| **Storage** | Store at -20 °C.Stable for 12 months from date of receipt |

## Protein Information

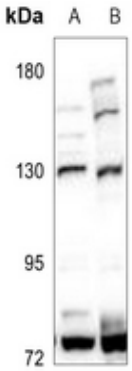
| | |
|---|---|
| **Name** | ADCY1 |
| **Function** | Catalyzes the formation of the signaling molecule cAMP in response to G protein signaling. Mediates responses to increased cellular Ca(2+)/calmodulin levels (By similarity). May be involved in regulatory processes in the central nervous system. May play a role in memory and learning. Plays a role in the regulation of the circadian rhythm of daytime contrast sensitivity probably by modulating the rhythmic synthesis of cyclic AMP in the retina (By similarity). |
| **Cellular Location** | Membrane {ECO:0000250\|UniProtKB:P19754}; Multi- pass membrane protein {ECO:0000250\|UniProtKB:P19754}. Cell membrane; Multi-pass membrane protein. Cytoplasm {ECO:0000250\|UniProtKB:O88444}. Membrane raft {ECO:0000250\|UniProtKB:P19754}. Note=Expressed in the cytoplasm of supporting cells and hair cells of the cochlea vestibule, as well as to the cochlear hair cell nuclei and stereocilia {ECO:0000250\|UniProtKB:O88444} |
| **Tissue Location** | Detected in zona glomerulosa and zona fasciculata in the adrenal gland (at |

protein level) (PubMed:11549699). Brain, retina and adrenal medulla.

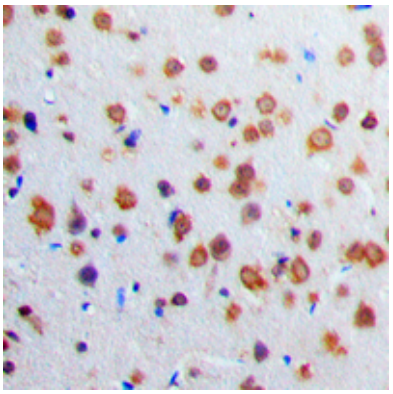
## References

Hillier L.W.,et al.Nature 424:157-164(2003).
Scherer S.W.,et al.Science 300:767-772(2003).
Villacres E.C.,et al.Genomics 16:473-478(1993).

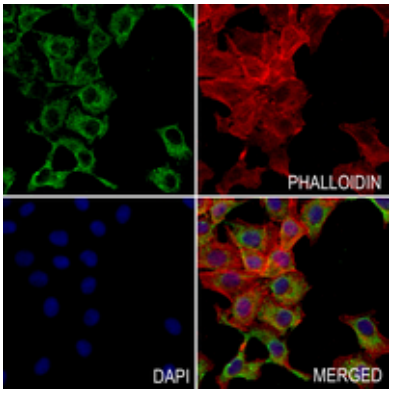
## Images




Western blot analysis of Adenylate Cyclase 1 expression in MCF7 (A), C6 (B) whole cell lysates. (Predicted band size: 123 kD; Observed band size: 130 kD)



Immunohistochemical analysis of Adenylate Cyclase 1 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 1 staining in HepG2 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 hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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