

Anti-Adenylate Cyclase 7 Antibody

Rabbit polyclonal antibody to Adenylate Cyclase 7

Catalog # AP61466

Product Information

Application	WB, IHC, IF
Primary Accession	P51828
Other Accession	P51829
Reactivity	Human, Mouse, Monkey, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	120308

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	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Adenylate Cyclase 7. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IH (1/50 - 1/200), IF/IC (1/50 - 1/200) IHC~~1:100~500 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

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 , PubMed: 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 ,

PubMed:[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).

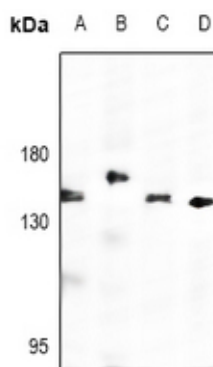
Cellular Location

Membrane; Multi-pass membrane protein.

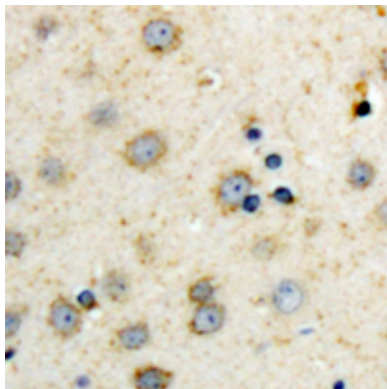
Background

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

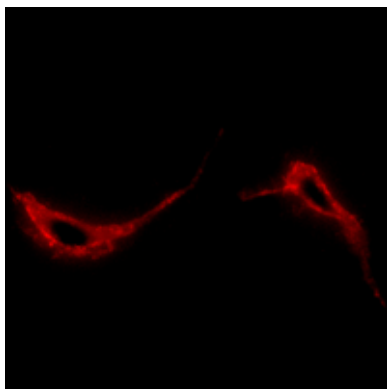
Images



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.