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Product datasheet for AP20473PU-M

Adenylate cyclase 1 (ADCY1) (aa 230-280) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	**Western blot**: 1/500- 1/1000. **Immuohistochemistry on paraffin sections**: 1/50- 1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 230-280 of Human ADCY 1.
Specificity:	This antibody detects endogenous levels of A Cyclase I protein. (region surrounding Asp252)
Formulation:	Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 130 kDa
Gene Name:	adenylate cyclase 1 (brain)
Database Link:	Entrez Gene 305509 RatEntrez Gene 432530 MouseEntrez Gene 107 Human Q08828

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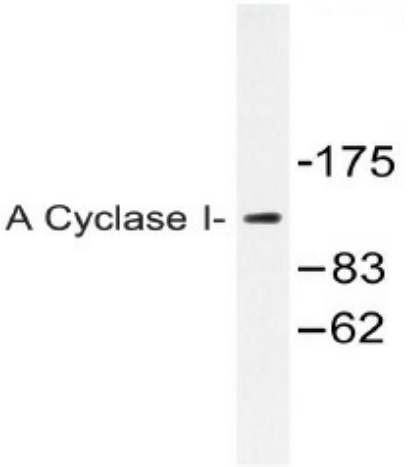
Background: Adenylyl cyclases function to convert ATP to cyclic AMP in response to activation by a variety of hormones, neurotransmitters and other regulatory molecules. Cyclic AMP, in turn, activates several other target molecules to control a broad range of diverse phenomena such as metabolism, gene transcription and memory. Adenylyl cyclases respond to receptor-initiated signals, mediated by the Gs and Gi heterotrimeric G proteins. The binding of an agonist to a Gs-coupled receptor catalyzes the exchange of GDP (bound to Galpha s) for GTP, the dissociation of GTP-Galpha s from Gbeta-gamma and Galpha s)-mediated activation of adenylyl cyclase. Adenylyl cyclases type I (AC I) and III (AC III) have distinct staining within the cell nucleus of rat brain sensory neurons. AC I is expressed in myenteric ganglia as two bands of 160 kDa and 185 kDa by SDS-PAGE. Ca2+ stimulation of AC I and AC III is mediated by calmodulin. Protein associated with Myc (PAM) is a very potent inhibitor of AC I. A decrease in endogenous PAM levels in HeLa cells modulate both basal and agonist stimulated cAMP accumulation.

Synonyms: ADCY1

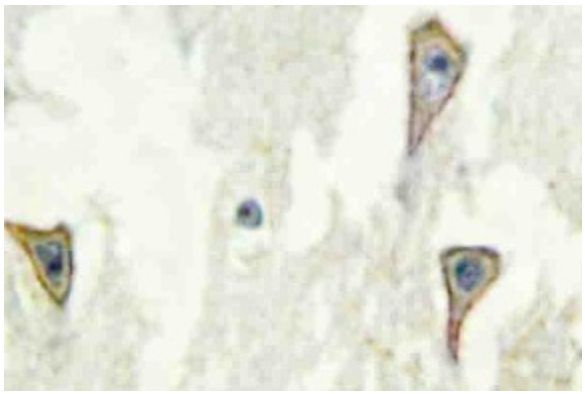
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Calcium signaling pathway, Chemokine signaling pathway, Dilated cardiomyopathy, Gap junction, GnRH signaling pathway, Long-term potentiation, Melanogenesis, Oocyte meiosis, Progesterone-mediated oocyte maturation, Purine metabolism, Vascular smooth muscle contraction

Product images:



Western blot (WB) analysis of A Cyclase I antibody (Cat.-No.: [AP20473PU-N]) in extracts from COLO205 cells.



Immunohistochemistry (IHC) analyzes of A Cyclase I antibosy (Cat.-No.: [AP20473PU-N]) in paraffin-embedded human brain tissue.