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ADCY10 Rabbit pAb

Catalog # AP98511

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q96PN6
Other Accession	Q96PN6
Reactivity	Rat, Human
Predicted	Pig, Mouse, Rabbit, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	187149
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ADCY10
Epitope Specificity	1101-1200/1610
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the adenylyl cyclase class-4/guanylyl cyclase family.Contains 2 guanylate cyclase domains.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	ADCY10 belongs to a distinct class of mammalian adenylyl cyclase that is soluble and insensitive to G protein or forskolin regulation. It is localized in the cytoplasm and is thought to function as a general bicarbonate sensor throughout the body. It may also play an important role in the generation of cAMP in spermatozoa, implying possible roles in sperm maturation through the epididymis, capacitation, hypermotility, and/or the acrosome reaction.

Additional Information

Gene ID	55811
Other Names	HCA2; HEL-S-7a; SAC; SACI; Sacy; hsAC; 4930431D04Rik; 4931412F17; ADCYA_HUMAN; ADCY10; AH-related protein; Adenylate cyclase homolog; Germ cell soluble adenylyl cyclase (hsAC | sAC); Testicular soluble adenylyl cyclase; 4.6.1.1; ADCYA_MOUSE; Germ cell soluble adenylyl cyclase (sAC); ADCYA_RAT; adenylate cyclase 10; adenylate cyclase 10, soluble; soluble adenylyl cyclase; Hypercalciuria, absorptive, 2
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ADCY10
Synonyms	SAC
Function	Catalyzes the formation of the signaling molecule cAMP (PubMed: 12609998, PubMed:15659711, PubMed:24567411, PubMed:24616449, PubMed:25040695). May function as sensor that mediates responses to changes in cellular bicarbonate and CO(2) levels (PubMed:15659711, PubMed:17591988). Has a critical role in mammalian spermatogenesis by producing the cAMP which regulates cAMP-responsive nuclear factors indispensable for sperm maturation in the epididymis. Induces capacitation, the maturational process that sperm undergo prior to fertilization (By similarity). Involved in ciliary beat regulation (PubMed:17591988).
Cellular Location	Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm, cytoskeleton. Cytoplasm, perinuclear region. Nucleus. Cell projection, cilium. Cytoplasm Mitochondrion. Note=Distributed to subcellular compartments containing cAMP targets. Found as a plasma membrane-associated protein, protein concentrated in the perinuclear region and protein colocalized with actin or tubulin
Tissue Location	Detected in airway epithelial cells and testis (at protein level) (PubMed:17591988). Weakly expressed in multiple tissues Expressed in brain, heart, kidney, liver, lung, pancreas, peripheral blood leukocytes, placenta, skeletal muscle, stomach, thymus, airway epithelial cells, duodenum, jejunum and ileum. Very low level of expression in bone.

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