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

ADRA1A Rabbit pAb

Catalog # AP98635

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P97718
Other Accession	P97718
Reactivity	Rat, Human, Mouse
Predicted	Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	51744
Physical State	Lyophilized or Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse Alpha-1A adrenergic receptor
Epitope Specificity	371-466/466
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 G-protein coupled receptor 1 family. Adrenergic receptor subfamily. ADRA1A sub-subfamily.
SUBUNIT	Homo- and heterooligomer. Heterooligomerizes with ADRA1B homooligomers in cardiac myocytes.
Post-translational modifications	C-terminal Ser or Thr residues may be phosphorylated.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Alpha-1-adrenergic receptors (alpha-1-ARs) are members of the G protein-coupled receptor superfamily. They activate mitogenic responses and regulate growth and proliferation of many cells. There are 3 alpha-1-AR subtypes: alpha-1A, -1B and -1D, all of which signal through the Gq/11 family of G-proteins and different subtypes show different patterns of activation. This gene encodes alpha-1A-adrenergic receptor. Alternative splicing of this gene generates four transcript variants, which encode four different isoforms with distinct C-termini but having similar ligand binding properties. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	11549
Other Names	ADRA1C; ADRA1L1; ALPHA1AAR; ADA1A_HUMAN; ADRA1A; Alpha-1A adrenoreceptor (Alpha-1A adrenoceptor); Alpha-1C adrenergic receptor; Alpha-adrenergic receptor 1c; ADA1A_MOUSE; ADA1A_RAT; adrenoceptor alpha 1A; adrenergic, alpha-1A-, receptor
Dilution	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	Adra1a {ECO:0000312|MGI:MGI:104773}
Synonyms	Adra1c
Function	Alpha-1 adrenergic receptors are G protein-coupled receptors for catecholamines that signal through the G(q) family of G proteins, including G(q) and G(11). Upon activation, they stimulate the phosphatidylinositol-calcium second messenger pathway, leading to calcium release from intracellular stores and activation of protein kinase C. ADRA1A binds the catecholamine ligands norepinephrine and epinephrine (By similarity). Can also couple to G(14) protein (By similarity). Nuclear ADRA1A forms heterooligomers with ADRA1B to regulate phenylephrine(PE)-stimulated ERK signaling in cardiac myocytes. At the plasma membrane, ADRA1A interacts with CAVIN4/MURC to regulates ERK activation in cardiomyocytes, contributing to the regulation of cardiac hypertrophy (By similarity). Additionally, functions as a vasopressor in resistance arteries and plays a role in maintaining normal arterial blood pressure (PubMed:12093905).
Cellular Location	Nucleus membrane {ECO:0000250|UniProtKB:P35348}; Multi-pass membrane protein. Cell membrane {ECO:0000250|UniProtKB:P35348}; Multi-pass membrane protein. Cytoplasm {ECO:0000250|UniProtKB:P35348}. Membrane, caveola {ECO:0000250|UniProtKB:P35348}. Note=Location at the nuclear membrane facilitates heterooligomerization and regulates ERK-mediated signaling in cardiac myocytes. Colocalizes with GNAQ, PLCB1 as well as LAP2 at the nuclear membrane of cardiac myocytes. Colocalizes with CAVIN4 and CAV3 at the plasma membrane and partly within the cytoplasm in cardiomyocytes. {ECO:0000250|UniProtKB:P35348}

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