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AR-α1A Polyclonal Antibody

Catalog # AP68537

Product Information

Application	WB, IF, ICC, E
Primary Accession	P35348
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	51487

Additional Information

Gene ID	148
Other Names	ADRA1A; ADRA1C; Alpha-1A adrenergic receptor; Alpha-1A adrenoreceptor; Alpha-1A adrenoceptor; Alpha-1C adrenergic receptor; Alpha-adrenergic receptor 1c
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications. IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

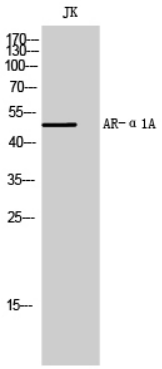
Name	ADRA1A (HGNC:277)
Synonyms	ADRA1C
Function	Alpha-1 adrenergic receptors are G protein-coupled receptors for catecholamines that signal through the G(q) family of G proteins, including G(q) and G(11). Upon activation, they stimulate the phosphatidylinositol-calcium second messenger pathway, leading to calcium release from intracellular stores and activation of protein kinase C (PubMed:37563160). ADRA1A binds the catecholamine ligands norepinephrine and epinephrine (PubMed:18802028, PubMed:37563160, PubMed:7815325, PubMed:8024574, PubMed:8183249, PubMed:8832064). 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 (PubMed:18802028, PubMed:22120526). At the plasma membrane, ADRA1A interacts with CAVIN4/MURC to regulates ERK activation in cardiomyocytes, contributing to the regulation of cardiac

	hypertrophy (PubMed:24567387). Additionally, functions as a vasopressor in resistance arteries and plays a role in maintaining normal arterial blood pressure (By similarity).
Cellular Location	Nucleus membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Cytoplasm. Membrane, caveola. Note=Location at the nuclear membrane facilitates heterooligomerization and regulates ERK-mediated signaling in cardiac myocytes (PubMed:18802028, PubMed:22120526) Colocalizes with GNAQ, PLCB1 as well as LAP2 at the nuclear membrane of cardiac myocytes (PubMed:18802028, PubMed:22120526). Colocalizes with CAVIN4 and CAV3 at the plasma membrane and partly within the cytoplasm in cardiomyocytes (PubMed:24567387).
Tissue Location	Expressed in heart, brain, liver and prostate, but not in kidney, lung, adrenal, aorta and pituitary. Within the prostate, expressed in the apex, base, periurethral and lateral lobe. Isoform 4 is the most abundant isoform expressed in the prostate with high levels also detected in liver and heart.

Background

This alpha-adrenergic receptor mediates its action by association with G proteins that activate a phosphatidylinositol- calcium second messenger system. Its effect is mediated by G(q) and G(11) proteins. Nuclear ADRA1A-ADRA1B heterooligomers regulate phenylephrine(PE)-stimulated ERK signaling in cardiac myocytes.

Images



Western Blot analysis of JK cells using AR-α1A Polyclonal Antibody

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