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Anti-ADRA1A Picoband Antibody

Catalog # ABO12438

Product Information

Application	WB
Primary Accession	P35348
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Alpha-1A adrenergic receptor(ADRA1A) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	148
Other Names	Alpha-1A adrenergic receptor, Alpha-1A adrenoreceptor, Alpha-1A adrenoceptor, Alpha-1C adrenergic receptor, Alpha-adrenergic receptor 1c, ADRA1A, ADRA1C
Calculated MW	51487
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Nucleus membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. 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.
Tissue Specificity	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. .
Source	Eukaryota
Protein Name	Alpha-1A adrenergic receptor
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ADRA1A (335-373aa KAFQNVLRIQCLCRKQSSKHALGYTLHPPSQAVEGQHKD), different from the related mouse and rat sequences by four amino acids.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

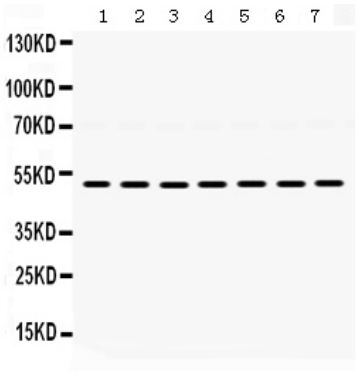
Protein Information

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

ADRA1A, also known as alpha-1A adrenergic receptor, is an alpha-1 adrenergic receptor, and also denotes the human gene encoding it. This gene is mapped to 8p21.2. Alpha-1-adrenergic receptors are G protein-coupled transmembrane receptors that mediate actions in the sympathetic nervous system through the binding of the catecholamines, epinephrine and norepinephrine. It has been found that ADRA1A transcripts in heart, brain, liver, and prostate. ADRA1A is the predominant ADRA1 subtype in liver and heart, and it can mediate the contraction of prostate smooth muscle.

Images



Anti- ADRA1A Picoband antibody, ABO12438, Western blottingAll lanes: Anti ADRA1A (ABO12438) at 0.5ug/mlLane 1: Rat Cardiac Muscle Tissue Lysate at 50ugLane 2: Rat Brain Tissue Lysate at 50ug Lane 3: Rat Liver Tissue Lysate at 50ugLane 4: Mouse Liver Tissue Lysate at 50ugLane 5: Mouse Lung Tissue Lysate at 50ugLane 6: 22RV1 Whole Cell Lysate at 40ugLane 7: SMMC Whole Cell Lysate at 40ugPredicted bind size: 51KDObserved bind size: 51KD

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