

ADRA1B Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP9404c

Product Information

Application	WB, IHC-P, E
Primary Accession	P35368
Other Accession	P15823 , P97717 , P43140 , O02824 , P97718 , P35348 , P18130
Reactivity	Human
Predicted	Bovine, Mouse, Rabbit, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB25170
Calculated MW	56836
Antigen Region	270-297

Additional Information

Gene ID	147
Other Names	Alpha-1B adrenergic receptor, Alpha-1B adrenoreceptor, Alpha-1B adrenoceptor, ADRA1B
Target/Specificity	This ADRA1B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 270-297 amino acids from the Central region of human ADRA1B.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ADRA1B Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ADRA1B (HGNC:278)
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 (By similarity). ADRA1B binds the catecholamine ligands norepinephrine and epinephrine (PubMed:[7815325](#), PubMed:[8183249](#)). Can also couple to G(14) and G(16) proteins (By similarity). Nuclear ADRA1B forms heterooligomers with ADRA1A to regulate phenylephrine(PE)- stimulated ERK signaling in cardiac myocytes (PubMed:[18802028](#), PubMed:[22120526](#)). At the plasma membrane, ADRA1B interacts with CAVIN4/MURC to regulates ERK activation in cardiomyocytes, contributing to the regulation of cardiac hypertrophy (PubMed:[24567387](#)).

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. 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).

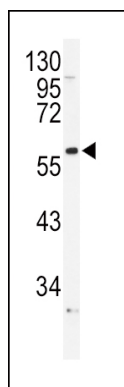
Background

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 protein encodes alpha-1B-adrenergic receptor, which induces neoplastic transformation when transfected into NIH 3T3 fibroblasts and other cell lines. Thus, this normal cellular gene is identified as a protooncogene. This protein comprises 2 exons and a single large intron of at least 20 kb that interrupts the coding region.

References

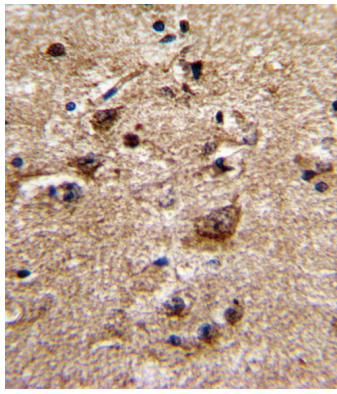
Mathias,R.A., J. Allergy Clin. Immunol. 125 (2), 336-346 (2010)
Jensen,B.C., Circ Heart Fail 2 (6), 654-663 (2009)
Gratacos,M., Am. J. Med. Genet. B Neuropsychiatr. Genet. 150B (6), 808-816 (2009)

Images



Western blot analysis of ADRA1B Antibody (Center) (Cat. #AP9404c) in NCI-H460 cell line lysates (35ug/lane). ADRA1B (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human brain with ADRA1B Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use



of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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