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

ADRA2B Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8566c

Product Information

Application	WB, IHC-P, FC, IF, E
Primary Accession	P18089
Reactivity	Human
Predicted	Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22486
Calculated MW	49954
Antigen Region	343-369

Additional Information

Gene ID	151
Other Names	Alpha-2B adrenergic receptor, Alpha-2 adrenergic receptor subtype C2, Alpha-2B adrenoreceptor, Alpha-2B adrenoceptor, Alpha-2BAR, ADRA2B, ADRA2L1, ADRA2RL1
Target/Specificity	This ADRA2B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 343-369 amino acids from the Central region of human ADRA2B.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 IF~~1:10~50 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	ADRA2B Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ADRA2B (HGNC:282)
Synonyms	ADRA2L1, ADRA2RL1

Function	Alpha-2 adrenergic receptors are G protein-coupled receptors for catecholamines that activate G(i/o) protein pathway, thereby promoting adenylyl cyclase inhibition, ERK1/2 stimulation, and voltage- gated calcium channels suppression (PubMed:11056163, PubMed:2164221, PubMed:2172775, PubMed:23105096, PubMed:26811329). Control a variety of physiological processes, such as regulation of blood pressure, lipolysis and insulin release (PubMed:2164221). The rank order of potency for agonists of ADRA2B is clonidine > norepinephrine > epinephrine = oxymetazoline > dopamine > p-tyramine = phenylephrine > serotonin > p-synephrine / p-octopamine. For antagonists, the rank order is yohimbine > chlorpromazine > phentolamine > mianserine > spiperone > prazosin > alprenolol > propanolol > pindolol (PubMed:2164221, PubMed:2172775).
Cellular Location	Cell membrane; Multi-pass membrane protein Note=Interaction with RAB26, GGA1, GGA2 and GGA3 mediates transport from the Golgi to the cell membrane.

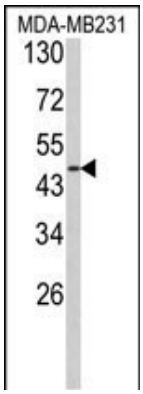
Background

Alpha-2-adrenergic receptors are members of the G protein-coupled receptor superfamily. They include 3 highly homologous subtypes: alpha2A, alpha2B, and alpha2C. These receptors have a critical role in regulating neurotransmitter release from sympathetic nerves and from adrenergic neurons in the central nervous system. Alpha 2B adrenergic receptor subtype was observed to associate with eIF-2B, a guanine nucleotide exchange protein that functions in regulation of translation. A polymorphic variant of the alpha2B subtype, which lacks 3 glutamic acids from a glutamic acid repeat element, was identified to have decreased G protein-coupled receptor kinase-mediated phosphorylation and desensitization; this polymorphic form is also associated with reduced basal metabolic rate in obese subjects and may therefore contribute to the pathogenesis of obesity. Alpha 2B adrenergic receptor gene contains no introns in either its coding or untranslated sequences.

References

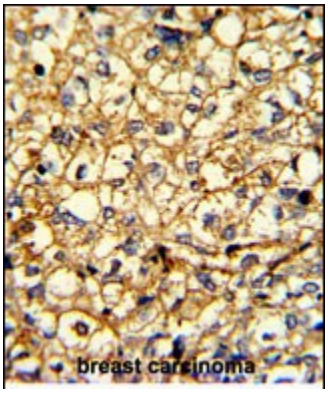
Tabakoff,B., et.al., BMC Biol. 7, 70 (2009) Weinshank,R.L., et.al. Mol. Pharmacol. 38 (5), 681-688 (1990)

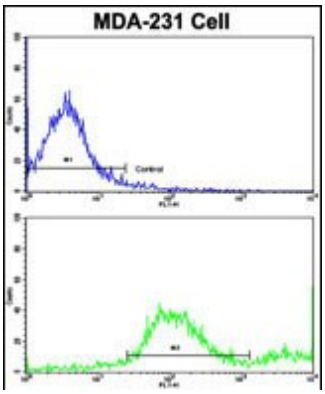
Images



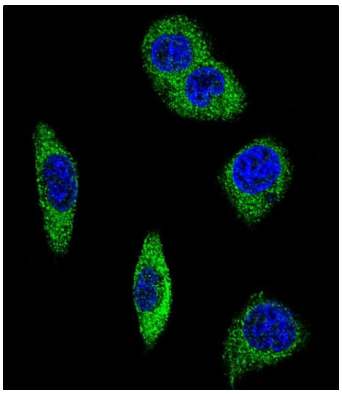
Western blot analysis of ADRA2B Antibody (Center) (Cat. #AP8566c) in MDA-MB231 cell line lysates (35ug/lane). ADRA2B (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human breast carcinoma with ADRA2B 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.





Flow cytometric analysis of MDA-231 cells using ADRA2B Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Confocal immunofluorescent analysis of ADRA2B Antibody (Center)(Cat#AP8566c) with MDA-MB231 cell followed by Alexa Fluor® 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

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