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ADRA2A Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50657

Product Information

Application	WB, IF
Primary Accession	P08913
Reactivity	Human
Host	Rabbit
Clonality	polyclonal
Calculated MW	50647

Additional Information

Gene ID	150
Other Names	Alpha-2A adrenergic receptor, Alpha-2 adrenergic receptor subtype C10, Alpha-2A adrenoreceptor, Alpha-2A adrenoceptor, Alpha-2AAR, ADRA2A, ADRA2R, ADRAR
Dilution	WB~~1:500 IF~~1:100
Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20℃

Protein Information

Name	ADRA2A (HGNC:281)
Synonyms	ADRA2R, ADRAR
Function	Alpha-2 adrenergic receptors are G protein-coupled receptors for catecholamines that activate the G(i/o) protein pathway, thereby promoting adenylyl cyclase inhibition, ERK1/2 stimulation, and voltage- gated calcium channels suppression (PubMed:2170371, PubMed:23105096, PubMed:2568356, PubMed:35245122, PubMed:27376152). Control a variety of physiological processes, such as regulation of blood pressure, lipolysis and insulin release (PubMed:2568356, PubMed:27376152). ADRA2A and ADRA2C mediates the presynaptic feedback inhibition of neurotransmitter release from noradrenergic nerve terminals in sympathetic and central nervous systems. ADRA2A inhibits transmitter release at high stimulation frequencies, whereas ADRA2C modulates neurotransmission at lower levels of nerve activity (By similarity). The rank order of potency for agonists of ADRA2A is oxymetazoline > clonidine > epinephrine > norepinephrine > phenylephrine > dopamine > p-synephrine > p-tyramine > serotonin = p-octopamine. For

antagonists, the rank order is yohimbine > phentolamine = mianserine > chlorpromazine = spiperone = prazosin > propanolol > alprenolol = pindolol (PubMed:2170371, PubMed:2568356).

Cellular Location Cell membrane; Multi-pass membrane protein

Background

Alpha-2 adrenergic receptors mediate the catecholamine- induced inhibition of adenylate cyclase through the action of G proteins. The rank order of potency for agonists of this receptor is oxymetazoline > clonidine > epinephrine > norepinephrine > phenylephrine > dopamine > p-synephrine > p-tyramine > serotonin = p-octopamine. For antagonists, the rank order is yohimbine > phentolamine = mianserine > chlorpromazine = spiperone = prazosin > propanolol > alprenolol = pindolol.

References

Kobilka B.K.,et al.Science 238:650-656(1987).
Fraser C.M.,et al.J. Biol. Chem. 264:11754-11761(1989).
Guyer C.A.,et al.J. Biol. Chem. 265:17307-17317(1990).
Small K.M.,et al.J. Biol. Chem. 275:38518-38523(2000).
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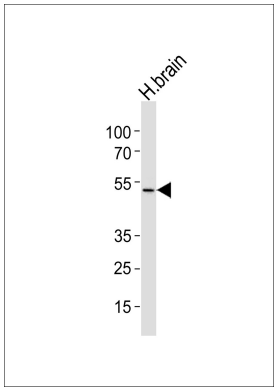
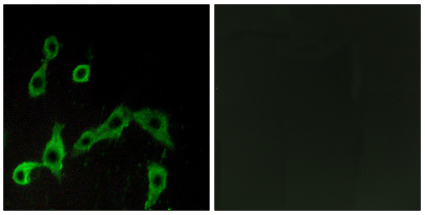
Images



Western blot analysis of lysate from H.brain cell line,using ADRA2A Antibody(AP50657). AP50657 was diluted at 1:500. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.



Immunofluorescence analysis of LOVO cells, using ADRA2A antibody.