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

AR α2A Polyclonal Antibody

Catalog # AP68481

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	P08913
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	50647

Additional Information

Gene ID	150
Other Names	ADRA2A; ADRA2R; ADRAR; Alpha-2A adrenergic receptor; Alpha-2 adrenergic receptor subtype C10; Alpha-2A adrenoreceptor; Alpha-2A adrenoceptor; Alpha-2AAR
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications. IHC-P~~N/A 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	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 >

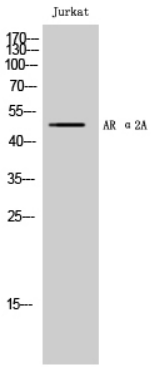
dopamine > p-synephrine > p-tyramine > serotonin = p-octopamine. For antagonists, the rank order is yohimbine > phentolamine = mianserine > chlorpromazine = spiperone = prazosin > propanolol > alprenolol = pindolol (PubMed:2170371, PubMed:2568356).

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.

Images



Western Blot analysis of Jurkat cells using AR α2A Polyclonal Antibody

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