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Anti-ADRB2 Picoband Antibody

Catalog # ABO12056

Product Information

Application	WB
Primary Accession	P07550
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Beta-2 adrenergic receptor(ADRB2) detection. Tested with WB in Human;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	154
Other Names	Beta-2 adrenergic receptor, Beta-2 adrenoreceptor, Beta-2 adrenoceptor, ADRB2, ADRB2R, B2AR
Calculated MW	46459
Application Details	Western blot, 0.1-0.5 □g/ml, Rat, Human
Subcellular Localization	Cell membrane ; Multi-pass membrane protein . Colocalizes with VHL at the cell membrane.
Source	Eukaryota
Protein Name	Beta-2 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 in the middle region of human ADRB2(221-256aa RVFQEAKRQLQKIDKSEGRFHVQNLSQVEQDGRTGH), different from the related mouse and rat sequences by three 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.
Sequence Similarities	Belongs to the G-protein coupled receptor 1 family. Adrenergic receptor

subfamily. ADRB2 sub-subfamily.

Protein Information

Name	ADRB2 (HGNC:286)
Synonyms	ADRB2R, B2AR
Function	G protein-coupled receptor for catecholamines that couples to both G(s) and G(i) proteins, activating bifurcated signaling pathways (PubMed:2831218, PubMed:7915137). ADRB2 binds epinephrine (Epi) with an approximately 30-fold greater affinity than norepinephrine (NE) (PubMed:2831218, PubMed:33093660, PubMed:7915137). In the heart, Epi- and NE-activated ADRB2 induces rapid and slow cardiomyocyte contraction rate, respectively (By similarity). Both NE and Epi promote coupling to G(s)/PKA pathway to regulate myocyte contraction rate (By similarity). Epi also promotes ADRB2 coupling to G(i) proteins to exert cardioprotective effects especially in the conditions of hypoxia and oxidative stress through the G(i)/PI3K/Akt signaling pathway (By similarity). ADRB2-G(s) signaling delivers proapoptotic signals in cardiomyocytes although G(i)-mediated survival effect appears to predominate (By similarity). ADRB2 also transduces signals independently of PKA to regulate cellular pH by modulating Na(+)/H(+) exchanger SLC9A3 function (PubMed:9560162).
Cellular Location	Cell membrane; Multi-pass membrane protein. Golgi apparatus. Note=Colocalizes with VHL at the cell membrane (PubMed:19584355). Activated receptors are internalized into endosomes prior to their degradation in lysosomes (PubMed:20559325). Activated receptors are also detected within the Golgi apparatus (PubMed:27481942).

Background

ADRB2, also known as beta-2 adrenergic receptor, is a beta-adrenergic receptor within a cell membrane which reacts with adrenaline (epinephrine) as a hormone or neurotransmitter affecting muscles or organs. It is mapped to 5q32. This receptor is directly associated with one of its ultimate effectors, the class C L-type calcium channel Ca(V)1.2. The genetic variation in the ADRB2 gene may be of major importance for obesity, energy expenditure, and lipolytic ADRB2 function in adipose tissue, at least in women. What □€™s more, it has been found that activation of ADRB2 receptors can stimulate gamma-secretase activity and beta-amyloid production, and the ADRB2 receptors activator may contribute to beta-amyloid accumulation in AD.

Images



Anti- ADRB2 Picoband antibody, ABO12056, Western blottingAll lanes: AntiADRB2 (ABO12056) at 0.5ug/mlWB: Rat Brain Tissue Lysate at 50ugPredicted bind size: 47KDObserved bind size: 47KD

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