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Anti-ADRB2 Picoband Antibody

Catalog # ABO12056

Specification

Anti-ADRB2 Picoband Antibody - 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.

Anti-ADRB2 Picoband Antibody - Additional Information

Gene ID 154

Other Names
Beta-2 adrenergic receptor, Beta-2 adrenoreceptor, Beta-2 adrenoceptor, ADRB2, ADRB2R, B2AR

Calculated MW
46459 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Rat, Human

Subcellular Localization
Cell membrane ; Multi-pass membrane protein . Colocalizes with VHL at the cell membrane.

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.

Anti-ADRB2 Picoband Antibody - 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).

Anti-ADRB2 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety

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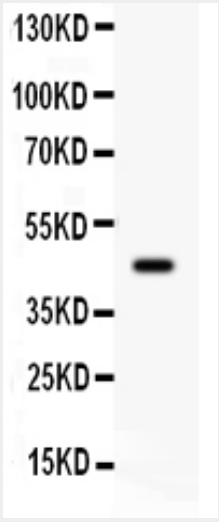
- Cell Culture

Anti-ADRB2 Picoband Antibody - 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

Anti-ADRB2 Picoband Antibody - 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. Whatâ€™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.