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beta 2 Adrenergic Receptor (BAR2) Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7263A

Specification

beta 2 Adrenergic Receptor (BAR2) Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	P07550
Other Accession	NP_000015
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**1-30**

beta 2 Adrenergic Receptor (BAR2) Antibody (N-term) - Additional Information

Gene ID 154

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

Target/Specificity
This beta 2 Adrenergic Receptor (BAR2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human beta 2 Adrenergic Receptor (BAR2).

Dilution
WB~~1:1000
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
beta 2 Adrenergic Receptor (BAR2) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

beta 2 Adrenergic Receptor (BAR2) Antibody (N-term) - 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).

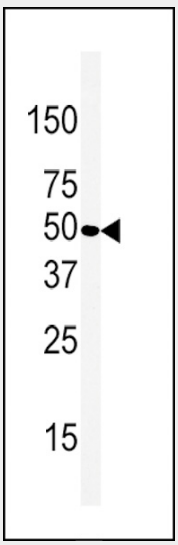
Cellular Location
Cell membrane; Multi-pass membrane protein. Golgi apparatus. Note=Colocalizes with VHL at the cell membrane (PubMed:19584355). Activated receptors are internalized into endosomes prior to their degradation in lysosomes (PubMed:20559325). Activated receptors are also detected within the Golgi apparatus (PubMed:27481942).

beta 2 Adrenergic Receptor (BAR2) Antibody (N-term) - 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
- Cell Culture

beta 2 Adrenergic Receptor (BAR2) Antibody (N-term) - Images



Western blot analysis of anti-BAR2 Antibody (N-term)(Cat. #AP7263a) in HL60 cell line lysates (35ug/lane). BAR2(arrow) was detected using the purified Pab.

beta 2 Adrenergic Receptor (BAR2) Antibody (N-term) - Background

This gene encodes beta-2-adrenergic receptor which is a member of the G protein-coupled receptor superfamily. This receptor is directly associated with one of its ultimate effectors, the class C L-type calcium channel Ca(V)1.2. This receptor-channel complex also contains a G protein, an adenylyl cyclase, cAMP-dependent kinase, and the counterbalancing phosphatase, PP2A. The assembly of the signaling complex provides a mechanism that ensures specific and rapid signaling by this G protein-coupled receptor. This gene is intronless. Different polymorphic forms, point mutations, and/or downregulation of this gene are associated with nocturnal asthma, obesity and type 2 diabetes.

beta 2 Adrenergic Receptor (BAR2) Antibody (N-term) - References

Wolfarth,B., Metab. Clin. Exp. 56 (12), 1649-1651 (2007)
Cherezov,V., Science 318 (5854), 1258-1265 (2007)

beta 2 Adrenergic Receptor (BAR2) Antibody (N-term) - Citations

- Enhanced Humoral Immunity in Mice Lacking CB1 and CB2 Receptors (Cnr1 -/- /Cnr2 -/- Mice) is not Due to Increased Splenic Noradrenergic Neuronal Activity.
- Matrix metalloproteinases cleave the beta2-adrenergic receptor in spontaneously hypertensive rats.