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BAR2 Antibody (S261)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7263d

Specification

BAR2 Antibody (S261) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P07550
Other Accession	NP_000015
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**236-264**

BAR2 Antibody (S261) - Additional Information

Gene ID 154

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

Target/Specificity
This BAR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 236-264 amino acids from human BAR2.

Dilution
WB~~1:2000
IHC-P~~1:10~50
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
BAR2 Antibody (S261) is for research use only and not for use in diagnostic or therapeutic procedures.

BAR2 Antibody (S261) - 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).

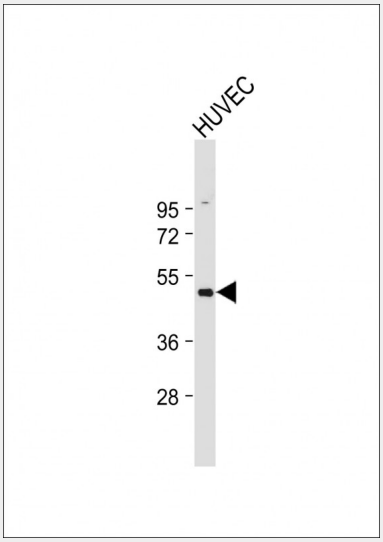
Cellular Location
Cell membrane; Multi-pass membrane protein. Golgi apparatus. Note=Colocalizes with VHL at the cell membrane (PubMed:19584355). Activated receptors are internalized into endosomes prior to their degradation in lysosomes (PubMed:20559325). Activated receptors are also detected within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

BAR2 Antibody (S261) - 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

BAR2 Antibody (S261) - Images



Anti-BAR2 Antibody (S261) at 1:2000 dilution + HUVEC whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 46 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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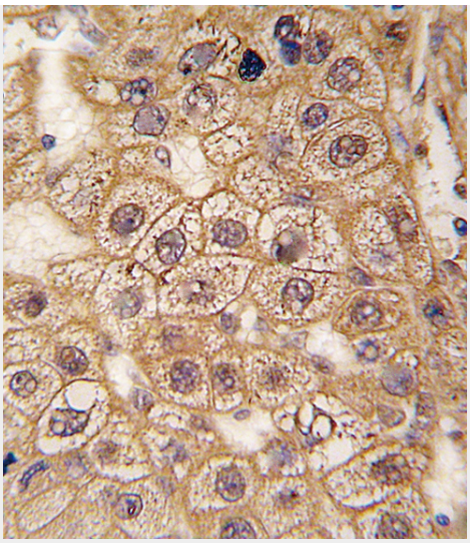

Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with BAR2 Antibody (S261) (Cat.#AP7263d), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

BAR2 Antibody (S261) - Background

Beta-2-adrenergic receptor 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.

BAR2 Antibody (S261) - References

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

BAR2 Antibody (S261) - Citations

- Enhanced Humoral Immunity in Mice Lacking CB1 and CB2 Receptors (Cnr1 -/- /Cnr2 -/- Mice) is not Due to Increased Splenic Noradrenergic Neuronal Activity.