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Mouse Monoclonal Antibody to ADRB2

Purified Mouse Monoclonal Antibody
Catalog # AO2465a

Specification

Mouse Monoclonal Antibody to ADRB2 - Product Information

Application	**WB, FC, E**
Primary Accession	P07550
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1**
Calculated MW	**46.5kDa KDa**

Description
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.;

Immunogen
Purified recombinant fragment of human ADRB2 (AA: 302-413) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

Application Note
ELISA: 1/10000; WB: 1/500 - 1/2000; FCM: 1/200 - 1/400

Mouse Monoclonal Antibody to ADRB2 - Additional Information

Gene ID 154

Other Names
BAR; B2AR; ADRBR; ADRB2R; BETA2AR

Dilution
WB~~1:1000
FC~~1:10~50
E~~N/A

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Mouse Monoclonal Antibody to ADRB2 is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Monoclonal Antibody to ADRB2 - 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).

Mouse Monoclonal Antibody to ADRB2 - 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

Mouse Monoclonal Antibody to ADRB2 - Images

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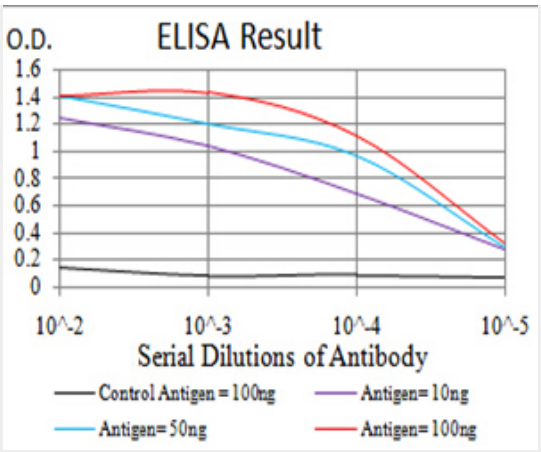
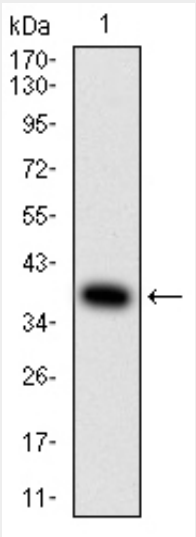
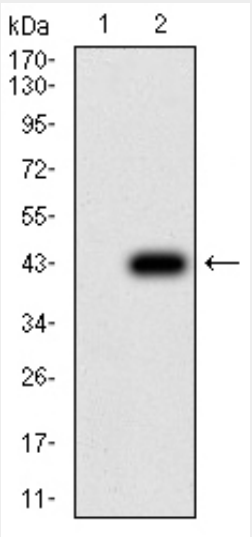


Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)



Western blot analysis using ADRB2 mAb against human ADRB2 (AA: 302-413) recombinant protein. (Expected MW is 38.5 kDa)



Western blot analysis using ADRB2 mAb against HEK293 (1) and ADRB2 (AA: 302-413)-hIgGFc transfected HEK293 (2) cell lysate.

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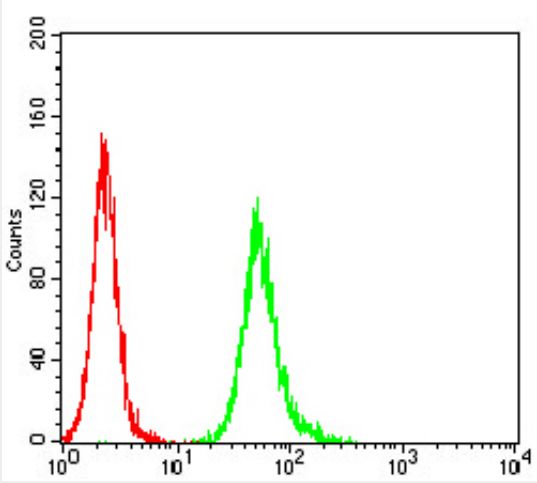

Flow cytometric analysis of Hela cells using ADRB2 mouse mAb (green) and negative control (red).

Mouse Monoclonal Antibody to ADRB2 - References

1.World J Gastroenterol. 2015 Jun 21;21(23):7191-6. ; 2.Adv Exp Med Biol. 2015;842:247-61.;