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Goat Anti-ADRB2R / ADRB2 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1033a

Specification

Goat Anti-ADRB2R / ADRB2 Antibody - Product Information

Application	**WB, E**
Primary Accession	P07550
Other Accession	NP_000015, 154
Reactivity	**Human, Bovine**
Predicted	**Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**46459**

Goat Anti-ADRB2R / ADRB2 Antibody - Additional Information

Gene ID 154

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

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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
Goat Anti-ADRB2R / ADRB2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-ADRB2R / ADRB2 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).

Goat Anti-ADRB2R / ADRB2 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
- Cell Culture

Goat Anti-ADRB2R / ADRB2 Antibody - Images

AF1033a (0.2 µg/ml) staining of human liver lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-ADRB2R / ADRB2 Antibody - 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.

Goat Anti-ADRB2R / ADRB2 Antibody - References

The Arg16Gly-□(2)-adrenoceptor single nucleotide polymorphism: exercise capacity and survival in patients with end-stage heart failure. Leineweber K, et al. Naunyn Schmiedebergs Arch Pharmacol, 2010 Oct. PMID 20803192.
A46G and C79G polymorphisms in the beta2-adrenergic receptor gene (ADRB2) and essential hypertension risk: a meta-analysis. Lou Y, et al. Hypertens Res, 2010 Aug 26. PMID 20739939.
The Gln27Glu polymorphism in □2-adrenergic receptor gene is linked to hypertriglyceridemia, hyperinsulinemia and hyperleptinemia in Saudis. Daghestani MH, et al. Lipids Health Dis, 2010 Aug 25. PMID 20738880.
ADRB2 gene variants, dual-energy x-ray absorptiometry body composition, and hypertension in Tobago men of African descent. Beason TS, et al. Metabolism, 2010 Aug 18. PMID 20727557.
Association between Genetic Polymorphisms of Adrenergic Receptor and Diurnal Intraocular Pressure in Japanese Normal-Tension Glaucoma. Gao Y, et al. Ophthalmology, 2010 Aug 10. PMID 20705341.