

ADRB2 Antibody (S364) Blocking Peptide
Synthetic peptide
Catalog # BP7263e**Specification**

ADRB2 Antibody (S364) Blocking Peptide - Product InformationPrimary Accession [P07550](#)**ADRB2 Antibody (S364) Blocking Peptide - Additional Information****Gene ID** 154**Other Names**

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

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7263e](/products/AP7263e) was selected from the S364 region of human ADRB2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ADRB2 Antibody (S364) Blocking Peptide - 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](http://www.uniprot.org/citations/2831218), PubMed:[7915137](http://www.uniprot.org/citations/7915137)). ADRB2 binds epinephrine (Epi) with an approximately 30-fold greater affinity than norepinephrine (NE) (PubMed:[2831218](http://www.uniprot.org/citations/2831218), PubMed:[33093660](http://www.uniprot.org/citations/33093660), PubMed:[7915137](http://www.uniprot.org/citations/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).

ADRB2 Antibody (S364) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

ADRB2 Antibody (S364) Blocking Peptide - Images

ADRB2 Antibody (S364) Blocking Peptide - Background

ADRB2 is 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 protein is intronless.

ADRB2 Antibody (S364) Blocking Peptide - References

Kobilka B.K., Dixon R.A.F. Proc. Natl. Acad. Sci. U.S.A. 84:46-50(1987) Emorine L.J., Marullo S. Proc. Natl. Acad. Sci. U.S.A. 84:6995-6999(1987) Kobilka B.K., Frielle T.J. Biol. Chem. 262:7321-7327(1987)