

**ADRA1B Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP9404c****Specification**

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**ADRA1B Antibody (Center) Blocking Peptide - Product Information**Primary Accession [P35368](#)**ADRA1B Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 147**Other Names**

Alpha-1B adrenergic receptor, Alpha-1B adrenoreceptor, Alpha-1B adrenoceptor, ADRA1B

**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.

**ADRA1B Antibody (Center) Blocking Peptide - Protein Information****Name** ADRA1B ([HGNC:278](#))**Function**

Alpha-1 adrenergic receptors are G protein-coupled receptors for catecholamines that signal through the G(q) family of G proteins, including G(q) and G(11). Upon activation, they stimulate the phosphatidylinositol-calcium second messenger pathway, leading to calcium release from intracellular stores and activation of protein kinase C (By similarity). ADRA1B binds the catecholamine ligands norepinephrine and epinephrine (PubMed:<a href="http://www.uniprot.org/citations/7815325" target="\_blank">7815325</a>, PubMed:<a href="http://www.uniprot.org/citations/8183249" target="\_blank">8183249</a>). Can also couple to G(14) and G(16) proteins (By similarity). Nuclear ADRA1B forms heterooligomers with ADRA1A to regulate phenylephrine(PE)- stimulated ERK signaling in cardiac myocytes (PubMed:<a href="http://www.uniprot.org/citations/18802028" target="\_blank">18802028</a>, PubMed:<a href="http://www.uniprot.org/citations/22120526" target="\_blank">22120526</a>). At the plasma membrane, ADRA1B interacts with CAVIN4/MURC to regulates ERK activation in cardiomyocytes, contributing to the regulation of cardiac hypertrophy (PubMed:<a href="http://www.uniprot.org/citations/24567387" target="\_blank">24567387</a>).

**Cellular Location**

Nucleus membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Cytoplasm. Membrane, caveola. Note=Location at the nuclear membrane facilitates

heterooligomerization and regulates ERK-mediated signaling in cardiac myocytes. Colocalizes with GNAQ, PLCB1 as well as LAP2 at the nuclear membrane of cardiac myocytes (PubMed:18802028, PubMed:22120526). Colocalizes with CAVIN4 and CAV3 at the plasma membrane and partly within the cytoplasm in cardiomyocytes (PubMed:24567387).

### **ADRA1B Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **ADRA1B Antibody (Center) Blocking Peptide - Images**

### **ADRA1B Antibody (Center) Blocking Peptide - Background**

Alpha-1-adrenergic receptors (alpha-1-ARs) are members of the G protein-coupled receptor superfamily. They activate mitogenic responses and regulate growth and proliferation of many cells. There are 3 alpha-1-AR subtypes: alpha-1A, -1B and -1D, all of which signal through the Gq/11 family of G-proteins and different subtypes show different patterns of activation. This protein encodes alpha-1B-adrenergic receptor, which induces neoplastic transformation when transfected into NIH 3T3 fibroblasts and other cell lines. Thus, this normal cellular gene is identified as a protooncogene. This protein comprises 2 exons and a single large intron of at least 20 kb that interrupts the coding region.

### **ADRA1B Antibody (Center) Blocking Peptide - References**

Mathias,R.A., J. Allergy Clin. Immunol. 125 (2), 336-346 (2010)Jensen,B.C., Circ Heart Fail 2 (6), 654-663 (2009)Gratacos,M., Am. J. Med. Genet. B Neuropsychiatr. Genet. 150B (6), 808-816 (2009)