

ADRA1A Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP17016b**Specification**

ADRA1A Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P35348](#)**ADRA1A Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 148**Other Names**

Alpha-1A adrenergic receptor, Alpha-1A adrenoreceptor, Alpha-1A adrenoceptor, Alpha-1C adrenergic receptor, Alpha-adrenergic receptor 1c, ADRA1A, ADRA1C

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.

ADRA1A Antibody (C-term) Blocking Peptide - Protein Information**Name** ADRA1A ([HGNC:277](#))**Synonyms** ADRA1C**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 (PubMed:[37563160](http://www.uniprot.org/citations/37563160)). ADRA1A binds the catecholamine ligands norepinephrine and epinephrine (PubMed:[18802028](http://www.uniprot.org/citations/18802028), PubMed:[37563160](http://www.uniprot.org/citations/37563160), PubMed:[7815325](http://www.uniprot.org/citations/7815325), PubMed:[8024574](http://www.uniprot.org/citations/8024574), PubMed:[8183249](http://www.uniprot.org/citations/8183249), PubMed:[8832064](http://www.uniprot.org/citations/8832064)). Can also couple to G(14) protein (By similarity). Nuclear ADRA1A forms heterooligomers with ADRA1B to regulate phenylephrine(PE)-stimulated ERK signaling in cardiac myocytes (PubMed:[18802028](http://www.uniprot.org/citations/18802028), PubMed:[18802028](http://www.uniprot.org/citations/18802028)).

[22120526](http://www.uniprot.org/citations/22120526)). At the plasma membrane, ADRA1A interacts with CAVIN4/MURC to regulates ERK activation in cardiomyocytes, contributing to the regulation of cardiac hypertrophy (PubMed:[24567387](http://www.uniprot.org/citations/24567387)). Additionally, functions as a vasopressor in resistance arteries and plays a role in maintaining normal arterial blood pressure (By similarity).

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 (PubMed:18802028, PubMed:22120526) 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).

Tissue Location

Expressed in heart, brain, liver and prostate, but not in kidney, lung, adrenal, aorta and pituitary. Within the prostate, expressed in the apex, base, periurethral and lateral lobe. Isoform 4 is the most abundant isoform expressed in the prostate with high levels also detected in liver and heart.

ADRA1A Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

ADRA1A Antibody (C-term) Blocking Peptide - Images

ADRA1A Antibody (C-term) 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 gene encodes alpha-1A-adrenergic receptor. Alternative splicing of this gene generates four transcript variants, which encode four different isoforms with distinct C-termini but having similar ligand binding properties.

ADRA1A Antibody (C-term) Blocking Peptide - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Gao, Y., et al. Ophthalmology (2010) In press :Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Sorrentino, S., et al. Auton Neurosci 155 (1-2), 98-103 (2010) :Herlyn, P., et al. Clin J Pain 26(3):175-181(2010)