

**APLNR Antibody (Center) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP14123c****Specification**

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**APLNR Antibody (Center) Blocking peptide - Product Information**Primary Accession [P35414](#)**APLNR Antibody (Center) Blocking peptide - Additional Information****Gene ID** 187**Other Names**

Apelin receptor, Angiotensin receptor-like 1, G-protein coupled receptor APJ, G-protein coupled receptor HG11, APLNR, AGTRL1, APJ

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody AP14123c was selected from the Center region of APLNR. 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.

**APLNR Antibody (Center) Blocking peptide - Protein Information****Name** APLNR**Synonyms** AGTRL1, APJ**Function**

Receptor for apelin receptor early endogenous ligand (APELA) and apelin (APLN) hormones coupled to G proteins that inhibit adenylate cyclase activity (PubMed:<a href="http://www.uniprot.org/citations/11090199" target="\_blank">11090199</a>, PubMed:<a href="http://www.uniprot.org/citations/25639753" target="\_blank">25639753</a>, PubMed:<a href="http://www.uniprot.org/citations/28137936" target="\_blank">28137936</a>). Plays a key role in early development such as gastrulation, blood vessels formation and heart morphogenesis by acting as a receptor for APELA hormone (By similarity). May promote angioblast migration toward the embryonic midline, i.e. the position of the future vessel formation, during vasculogenesis (By similarity). Promotes sinus venosus (SV)-derived endothelial cells migration into the developing heart to promote coronary blood vessel development (By similarity). Also plays

a role in various processes in adults such as regulation of blood vessel formation, blood pressure, heart contractility and heart failure (PubMed:<a href="http://www.uniprot.org/citations/25639753" target="\_blank">25639753</a>, PubMed:<a href="http://www.uniprot.org/citations/28137936" target="\_blank">28137936</a>).

#### **Cellular Location**

Cell membrane. Note=After exposure to apelin (APLN), internalized from the cell surface into an endosomal recycling compartment, from where it is recycled to the cell membrane (By similarity). After exposure to apelin receptor early endogenous ligand (APELA), internalized from the cell surface into an endosomal recycling compartment, from where it is recycled to the cell membrane (PubMed:25639753) {ECO:0000250|UniProtKB:Q9JHG3, ECO:0000269|PubMed:25639753}

#### **Tissue Location**

Expressed in heart, brain, kidney, stomach, spleen, thymus, lung, ovary, small intestine and colon, adipose tissues and pancreas (PubMed:8294032, PubMed:25639753). Expressed in glial cells, astrocytes and neuronal subpopulations (PubMed:8294032). Expressed in embryonic (ESCs) and induced (iPSCs) pluripotent stem cells (PubMed:25639753).

### **APLNR Antibody (Center) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

### **APLNR Antibody (Center) Blocking peptide - Images**

### **APLNR Antibody (Center) Blocking peptide - Background**

This gene encodes a member of the G protein-coupled receptor gene family. The encoded protein is related to the angiotensin receptor, but is actually an apelin receptor that inhibits adenylate cyclase activity and plays a counter-regulatory role against the pressure action of angiotensin II by exerting a hypotensive effect. It functions in the cardiovascular and central nervous systems, in glucose metabolism, in embryonic and tumor angiogenesis and as a human immunodeficiency virus (HIV-1) coreceptor. Two transcript variants resulting from alternative splicing have been identified.

### **APLNR Antibody (Center) Blocking peptide - References**

Tao, Y., et al. Invest. Ophthalmol. Vis. Sci. 51(8):4237-4242(2010) Zhao, Q., et al. Am. J. Hypertens. 23(6):606-613(2010) Lee, D.K., et al. Biochem. Biophys. Res. Commun. 395(2):185-189(2010) Falcao-Pires, I., et al. Expert Opin. Ther. Targets 14(3):231-241(2010) Peltonen, T., et al. J. Heart Valve Dis. 18(6):644-652(2009)