

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

Synthetic peptide Catalog # BP14123c

### **Specification**

APLNR Antibody (Center) Blocking peptide - Product Information

Primary Accession <u>P35414</u>

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

# APLNR Antibody (Center) Blocking peptide - Background

This gene encodes a member of the G protein-coupledreceptor gene family. The encoded protein is related to theangiotensin receptor, but is actually an apelin receptor thatinhibits adenylate cyclase activity and plays a counter-regulatoryrole against the pressure action of angiotensin II by exertinghypertensive effect. It functions in the cardiovascular and centralnervous systems, in glucose metabolism, in embryonic and tumorangiogenesis and as a human immunodeficiency virus (HIV-1)coreceptor. Two transcript variants resulting from alternativesplicing 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)



#### **Function**

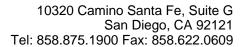
Receptor for apelin receptor early endogenous ligand (APELA) and apelin (APLN) hormones coupled to G proteins that inhibit adenylate cyclase activity (PubMed:<a href="http://www.uniprot.org/c itations/11090199" target=" blank">11090199</a>, PubMed:<a href="http://www.uniprot.org/ci tations/25639753" target=" blank">25639753</a>, PubMed:<a href="http://www.uniprot.org/ci tations/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). Plays also 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.unipr ot.org/citations/25639753" target=" blank">25639753</a>, PubMed:<a href="http://www.uniprot.org/ci tations/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