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(DANRE) aplnra Blocking Peptide (C-Term)

Synthetic peptide
Catalog # BP21299b

Specification

(DANRE) aplnra Blocking Peptide (C-Term) - Product Information

Primary Accession Q7SZP9

(DANRE) aplnra Blocking Peptide (C-Term) - Additional Information

Gene ID 561935

Other Names
Apelin receptor A, Angiotensin II receptor-like 1a, Angiotensin receptor-like 1a, G-protein coupled receptor APJ A, aplnra, agtrl1 {ECO:0000312|EMBL:ABI994701}, agtrl1a

Target/Specificity
The synthetic peptide sequence is selected from aa 343-357 of HUMAN aplnra

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.

(DANRE) aplnra Blocking Peptide (C-Term) - Protein Information

Name aplnra

Synonyms agtrl1 {ECO:0000312|EMBL:ABI99470.1}, ag

Function

(DANRE) aplnra Blocking Peptide (C-Term) - Background

Receptor for apelin coupled to G proteins that inhibit adenylate cyclase activity and plays a role in various processes in adults such as regulation of blood pressure, heart contractility, and heart failure. Also plays a key role in early development such as gastrulation and heart morphogenesis by acting as a receptor for apela hormone, promoting endoderm and mesendoderm cell migration and regulating the migration of cells fated to become myocardial progenitors, respectively (PubMed:24316148, PubMed:24407481). Acts redundantly with agtrl1b in heart development.

(DANRE) aplnra Blocking Peptide (C-Term) - References

Tucker B.,et al.Gene Expr. Patterns 7:258-265(2007).
Scott I.C.,et al.Dev. Cell 12:403-413(2007).
Chng S.C.,et al.Dev. Cell 27:672-680(2013).
Pauli A.,et al.Science 343:1248636-1248636(2014).

Receptor for apelin receptor early endogenous ligand (apela) and apelin (apln) hormones coupled to G proteins that inhibit adenylate cyclase activity (PubMed:17336906, PubMed:24316148, PubMed:24407481). Plays a key role in early development such as gastrulation, blood vessels formation and heart morphogenesis by acting as a receptor for apela hormone, promoting endoderm and mesendoderm cell migration and regulating the migration of cells fated to become myocardial progenitors, respectively (PubMed:17336906, PubMed:24316148, PubMed:24407481, PubMed:26017639). Positively regulates angioblast migration toward the embryonic midline, i.e. the position of the future vessel formation, during vasculogenesis (PubMed:26017639). May promote sinus venosus (SV)-derived endothelial cells migration into the developing heart to promote coronary blood vessel development (By similarity). Required for cardiovascular development, particularly for intersomitic vein angiogenesis by acting as a receptor for apln hormone (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 (By similarity). Acts redundantly with agtrl1b in heart development (PubMed:17336906).

Cellular Location
Cell membrane {ECO:0000250|UniProtKB:P79960}; Multi-pass membrane protein

{ECO:0000250|UniProtKB:P79960}
Note=Internalized to the cytoplasm after exposure to apelin (apln) 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
{ECO:0000250|UniProtKB:P35414, ECO:0000250|UniProtKB:P79960}

Tissue Location
First expressed before epiboly in dorsal precursors. During epiboly, expressed in the enveloping layer, yolk syncytial layer and migrating mesendoderm. During segmentation stages, expressed in epithelial structures such as adaxial cells, border cells of the newly formed somites, developing lens, otic vesicles and venous vasculature.

(DANRE) aplnra Blocking Peptide (C-Term) - Protocols

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

- Blocking Peptides