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APLNR/ Apelin Receptor / APJ Antibody (Cytoplasmic Domain)

Rabbit Polyclonal Antibody
Catalog # ALS10022

Specification

APLNR/ Apelin Receptor / APJ Antibody (Cytoplasmic Domain) - Product Information

Application	**IHC-P**
Primary Accession	P35414
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**43kDa KDa**
Dilution	**IHC-P~~N/A**

APLNR/ Apelin Receptor / APJ Antibody (Cytoplasmic Domain) - 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
Human Apelin Receptor. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage
Long term: -70°C; Short term: +4°C

Precautions
APLNR/ Apelin Receptor / APJ Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

APLNR/ Apelin Receptor / APJ Antibody (Cytoplasmic Domain) - Protein Information

Name APLNR (HGNC:339)

Synonyms AGTRL1, APJ

Function
G protein-coupled receptor for peptide hormones apelin (APLN) and apelin receptor early endogenous ligand (APELA/ELA), that plays a role in the regulation of normal cardiovascular function and fluid homeostasis (PubMed:11090199, PubMed:22810587, PubMed:25639753, PubMed:28137936, PubMed:35817871, PubMed:<a href="http://www.uniprot.org/citations/38428423"

target="_blank">38428423). When acting as apelin receptor, activates both G(i) protein pathway that inhibits adenylate cyclase activity, and the beta-arrestin pathway that promotes internalization of the receptor (PubMed:11090199, PubMed:25639753, PubMed:28137936, PubMed:35817871, PubMed:38428423). APLNR/APJ also functions as mechanoreceptor that is activated by pathological stimuli in a G-protein-independent fashion to induce beta-arrestin signaling, hence eliciting cardiac hypertrophy (PubMed:22810587, PubMed:38428423). However, the presence of apelin ligand blunts cardiac hypertrophic induction from APLNR/APJ on response to pathological stimuli (PubMed:22810587, PubMed:38428423). Plays a key role in early development such as gastrulation, blood vessels formation and heart morphogenesis by acting as a APELA receptor (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:25639753, PubMed:28137936).

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:25639753, PubMed:8294032). Expressed in glial cells, astrocytes and neuronal subpopulations (PubMed:8294032). Expressed in embryonic (ESCs) and induced (iPSCs) pluripotent stem cells (PubMed:25639753).

Volume
50 µl

APLNR/ Apelin Receptor / APJ Antibody (Cytoplasmic Domain) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

APLNR/ Apelin Receptor / APJ Antibody (Cytoplasmic Domain) - Images

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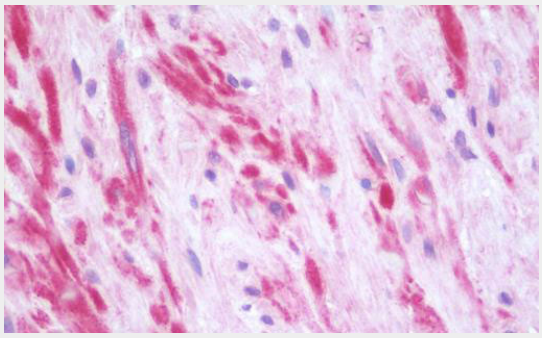
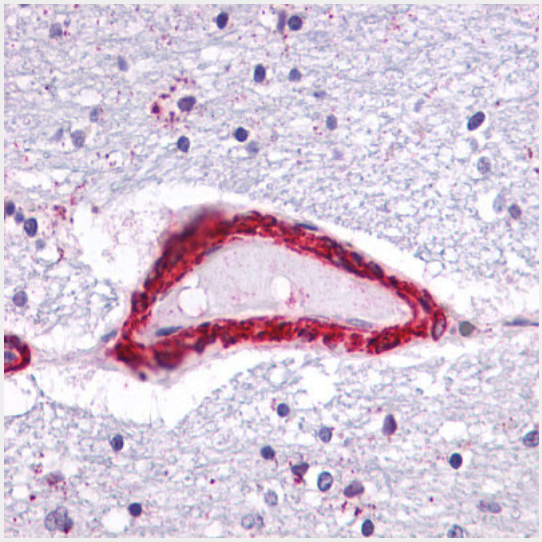


Human Prostate: Formalin-Fixed, Paraffin-Embedded (FFPE)



Anti-APLNR/ Apelin Receptor / APJ antibody IHC of human brain vessel.

APLNR/ Apelin Receptor / APJ Antibody (Cytoplasmic Domain) - 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. Alternative coreceptor with CD4 for HIV-1 infection; may be involved in the development of AIDS dementia.

APLNR/ Apelin Receptor / APJ Antibody (Cytoplasmic Domain) - References

O'Dowd B.F.,et al.Gene 136:355-360(1993).
Eggerickx D.,et al.Submitted (JUN-1995) to the EMBL/GenBank/DDBJ databases.