

Apelin Receptor Rabbit pAb

Apelin Receptor Rabbit pAb Catalog # AP52194

Product Information

Application WB
Primary Accession P35414
Reactivity Mouse
Host Rabbit
Clonality Polyclonal
Calculated MW 42660
Physical State Liquid

Immunogen KLH conjugated synthetic peptide derived from human Apelin receptor

Epitope Specificity 41-140/380

Isotype IgG

Purity affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Cell membrane.

SIMILARITY Belongs to the G-protein coupled receptor 1 family.

Important Note This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

Background Descriptions 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 hypertensive 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. [provided by RefSeq

Additional Information

Gene ID 187

Other Names Apelin receptor, Angiotensin receptor-like 1, G-protein coupled receptor APJ,

G-protein coupled receptor HG11, APLNR (HGNC:339), AGTRL1, APJ

Target/Specificity Widely expressed in the brain, in glial cells, astrocytes and neuronal

subpopulations, as well as in the spleen, thymus, ovary, small intestine and

colon.

Dilution WB=1:500-2000

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

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:<u>28137936</u>, PubMed:<u>35817871</u>, PubMed:<u>38428423</u>). 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:<u>11090199</u>, PubMed:<u>25639753</u>, PubMed:<u>28137936</u>, PubMed:<u>35817871</u>, PubMed:<u>38428423</u>). APLNR/API 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/API on response to pathological stimuli (PubMed:22810587,

PubMed:<u>38428423</u>). 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:<u>28137936</u>).

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:Q9|HG3,

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).

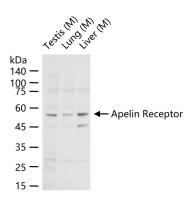
Background

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 hypertensive 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. [provided by RefSeq

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.

Images



25 ug total protein per lane of various lysates (see on figure) probed with Apelin Receptor polyclonal antibody, unconjugated (AP52194) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.