

Renin Receptor Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP51665

Product Information

Application WB, ICC **Primary Accession** 075787

Reactivity Human, Mouse, Rat

HostRabbitClonalityPolyclonalCalculated MW39008

Additional Information

Gene ID 10159

Other Names Renin receptor, ATPase H(+)-transporting lysosomal accessory protein 2,

ATPase H(+)-transporting lysosomal-interacting protein 2, ER-localized type I transmembrane adaptor, Embryonic liver differentiation factor 10, N14F, Renin/prorenin receptor, Vacuolar ATP synthase membrane sector-associated protein M8-9, ATP6M8-9, V-ATPase M89 subunit, ATP6AP2, ATP6IP2, CAPER,

ELDF10

Target/Specificity KLH-conjugated synthetic peptide encompassing a sequence within the center

region of human Renin Receptor. The exact sequence is proprietary.

Dilution WB~~1:1000 ICC~~N/A

Format 0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name ATP6AP2 (<u>HGNC:18305</u>)

Function Multifunctional protein which functions as a renin, prorenin cellular receptor

and is involved in the assembly of the lysosomal proton-transporting V-type ATPase (V-ATPase) and the acidification of the endo-lysosomal system

(PubMed:<u>12045255</u>, PubMed:<u>29127204</u>, PubMed:<u>30374053</u>,

PubMed:32276428). May mediate renin-dependent cellular responses by activating ERK1 and ERK2 (PubMed:12045255). By increasing the catalytic efficiency of renin in AGT/angiotensinogen conversion to angiotensin I, may also play a role in the renin-angiotensin system (RAS) (PubMed:12045255). Through its function in V-type ATPase (v- ATPase) assembly and acidification of the lysosome it regulates protein degradation and may control different signaling pathways important for proper brain development, synapse

morphology and synaptic transmission (By similarity).

Cellular Location

Endoplasmic reticulum membrane; Single-pass type I membrane protein. Lysosome membrane; Single- pass type I membrane protein. Cytoplasmic vesicle, autophagosome membrane {ECO:0000250|UniProtKB:Q9CYN9}; Single-pass type I membrane protein. Cell projection, dendritic spine membrane {ECO:0000250|UniProtKB:Q9CYN9}; Single-pass type I membrane protein. Cell projection, axon {ECO:0000250|UniProtKB:Q9CYN9}. Endosome membrane {ECO:0000250|UniProtKB:Q9CYN9}; Single-pass type I membrane protein. Cytoplasmic vesicle, clathrin-coated vesicle membrane {ECO:0000250|UniProtKB:Q6AXS4}; Single-pass type I membrane protein. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:Q6AXS4}; Single-pass type I membrane protein

Tissue Location

Expressed in brain, heart, placenta, liver, kidney and pancreas. Barely detectable in lung and skeletal muscles. In the kidney cortex it is restricted to the mesangium of glomeruli. In the coronary and kidney artery it is expressed in the subendothelium, associated to smooth muscles where it colocalizes with REN. Expressed in vascular structures and by syncytiotrophoblast cells in the mature fetal placenta.

Background

Functions as a renin and prorenin cellular receptor. May mediate renin-dependent cellular responses by activating ERK1 and ERK2. By increasing the catalytic efficiency of renin in AGT/angiotensinogen conversion to angiotensin I, it may also play a role in the renin-angiotensin system (RAS).

References

Nguyen G.,et al.J. Clin. Invest. 109:1417-1427(2002). Wang J.,et al.Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases. Hui R.T.,et al.Submitted (NOV-1998) to the EMBL/GenBank/DDBJ databases. Hu R.-M.,et al.Proc. Natl. Acad. Sci. U.S.A. 97:9543-9548(2000). Otsuki T.,et al.DNA Res. 12:117-126(2005).

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