

**Goat Anti-ATP6IP2 / Renin receptor Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1127a****Specification**

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**Goat Anti-ATP6IP2 / Renin receptor Antibody - Product Information**

Application	WB, IHC, E
Primary Accession	<a href="#">O75787</a>
Other Accession	<a href="#">NP_005756</a> , <a href="#">10159</a> , <a href="#">70495 (mouse)</a>
Reactivity	Human, Mouse, Rat
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	39008

**Goat Anti-ATP6IP2 / Renin receptor Antibody - 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 M8.9 subunit, ATP6AP2, ATP6IP2, CAPER, ELDF10

**Dilution**

WB~~1:1000  
IHC~~1:100~500  
E~~N/A

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-ATP6IP2 / Renin receptor Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-ATP6IP2 / Renin receptor Antibody - Protein Information****Name** ATP6AP2 ([HGNC:18305](#))

### 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:<a href="http://www.uniprot.org/citations/12045255" target="\_blank">12045255</a>, PubMed:<a href="http://www.uniprot.org/citations/29127204" target="\_blank">29127204</a>, PubMed:<a href="http://www.uniprot.org/citations/30374053" target="\_blank">30374053</a>, PubMed:<a href="http://www.uniprot.org/citations/32276428" target="\_blank">32276428</a>). May mediate renin-dependent cellular responses by activating ERK1 and ERK2 (PubMed:<a href="http://www.uniprot.org/citations/12045255" target="\_blank">12045255</a>). 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:<a href="http://www.uniprot.org/citations/12045255" target="\_blank">12045255</a>). 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.

## Goat Anti-ATP6IP2 / Renin receptor Antibody - Protocols

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

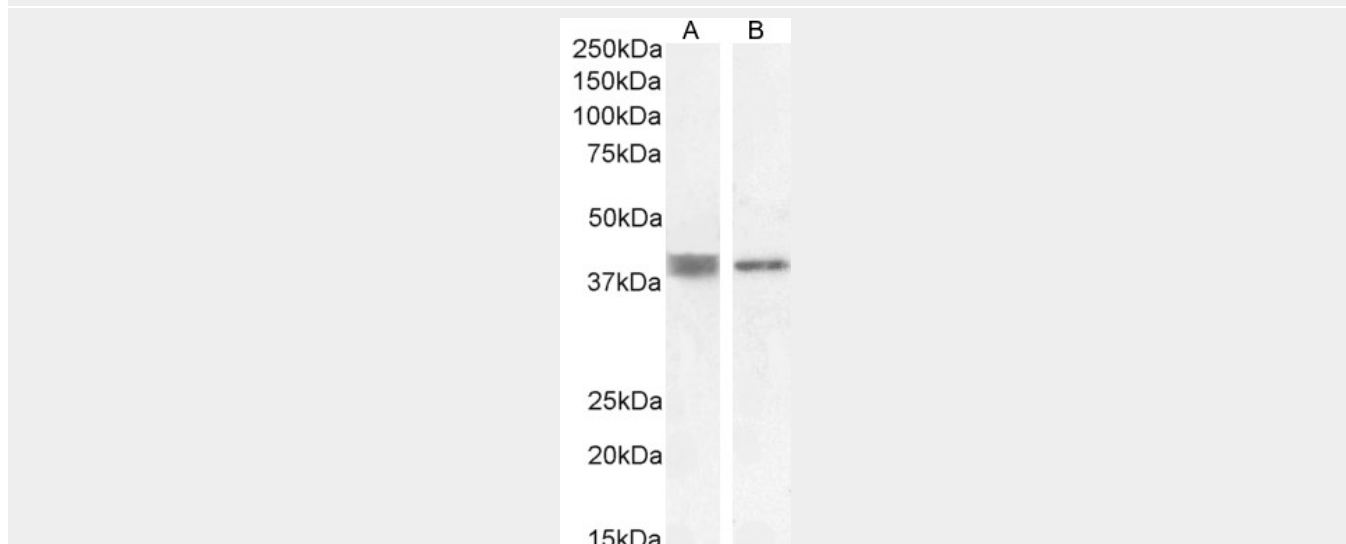
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Goat Anti-ATP6IP2 / Renin receptor Antibody - Images

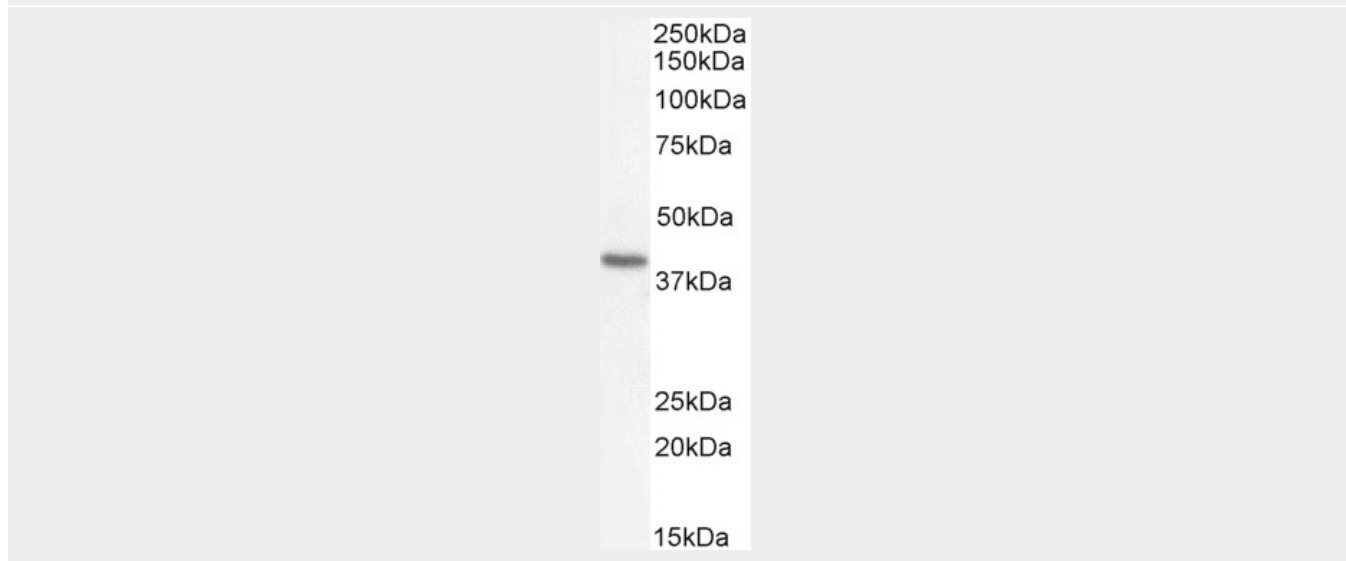




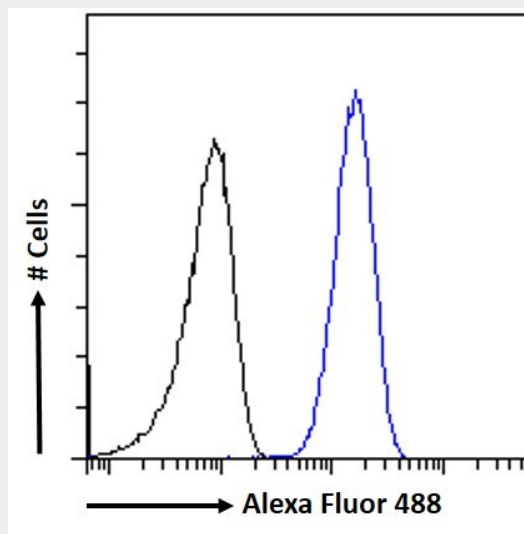
AF1127a staining (0.5  $\mu$ g/ml) of Human Kidney lysate (RIPA buffer, 35  $\mu$ g total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.



EB06118 (0.5 $\mu$ g/ml) staining of Human Cerebellum (A) and Heart (B) lysate (35 $\mu$ g protein in RIPA buffer). Detected by chemiluminescence.



EB06118 (0.5 $\mu$ g/ml) staining of Rat Heart lysate (35 $\mu$ g protein in RIPA buffer). Detected by chemiluminescence.



EB06118 Flow cytometric analysis of paraformaldehyde fixed HeLa cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10 $\mu$ g/ml) followed by Alexa Fluor 488 secondary antibody (2 $\mu$ g/ml). IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.

#### **Goat Anti-ATP6IP2 / Renin receptor Antibody - Background**

This gene encodes a protein that is associated with adenosine triphosphatases (ATPases). Proton-translocating ATPases have fundamental roles in energy conservation, secondary active transport, acidification of intracellular compartments, and cellular pH homeostasis. There are three classes of ATPases- F, P, and V. The vacuolar (V-type) ATPases have a transmembrane proton-conducting sector and an extramembrane catalytic sector. The encoded protein has been found associated with the transmembrane sector of the V-type ATPases.

#### **Goat Anti-ATP6IP2 / Renin receptor Antibody - References**

Expression of (pro)renin receptor in human kidneys with end-stage kidney disease due to diabetic nephropathy. Takahashi K, et al. Peptides, 2010 Jul. PMID 20385187.  
Requirement of prorenin receptor and vacuolar H<sup>+</sup>-ATPase-mediated acidification for Wnt signaling. Cruciat CM, et al. Science, 2010 Jan 22. PMID 20093472.  
Prorenin has high affinity multiple binding sites for (pro)renin receptor. Nabi AH, et al. Biochim Biophys Acta, 2009 Dec. PMID 19733264.  
Association of (pro)renin receptor mRNA expression with angiotensin-converting enzyme mRNA expression in human artery. Takemitsu T, et al. Am J Nephrol, 2009. PMID 19641301.  
Defining the human deubiquitinating enzyme interaction landscape. Sowa ME, et al. Cell, 2009 Jul 23. PMID 19615732.