

**ATP6AP2 Blocking Peptide (Center)**

Synthetic peptide  
Catalog # BP19956c

**Specification****ATP6AP2 Blocking Peptide (Center) - Product Information**

Primary Accession [O75787](#)  
Other Accession [NP\\_005756.2](#)

**ATP6AP2 Blocking Peptide (Center) - 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**

The synthetic peptide sequence is selected from aa 220-234 of HUMAN ATP6AP2

**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.

**ATP6AP2 Blocking Peptide (Center) - Protein Information****ATP6AP2 Blocking Peptide (Center) - 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.

**ATP6AP2 Blocking Peptide (Center) - References**

Takahashi, K., et al. Peptides 31(7):1405-1408(2010)  
Cruciat, C.M., et al. Science 327(5964):459-463(2010)  
Nabi, A.H., et al. Biochim. Biophys. Acta 1794(12):1838-1847(2009)  
Alcazar, O., et al. Exp. Eye Res. 89(5):638-647(2009)  
Takemitsu, T., et al. Am. J. Nephrol. 30(4):361-370(2009)

**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:[12045255](http://www.uniprot.org/citations/12045255)), PubMed:[29127204](http://www.uniprot.org/citations/29127204), PubMed:[30374053](http://www.uniprot.org/citations/30374053), PubMed:[32276428](http://www.uniprot.org/citations/32276428)). May mediate renin-dependent cellular responses by activating ERK1 and ERK2 (PubMed:[12045255](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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 Cytoplasmic vesicle,  
autophagosome membrane  
{ECO:0000250|UniProtKB:Q9CYN9}. Cell  
projection, dendritic spine membrane  
{ECO:0000250|UniProtKB:Q9CYN9}. Cell  
projection, axon  
{ECO:0000250|UniProtKB:Q9CYN9}.  
Endosome membrane  
{ECO:0000250|UniProtKB:Q9CYN9}

### 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.

### **ATP6AP2 Blocking Peptide (Center) - Protocols**

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

- [Blocking Peptides](#)