

# ATP4B Antibody (N-term) Blocking Peptide

Synthetic peptide Catalog # BP5181a

# Specification

# ATP4B Antibody (N-term) Blocking Peptide - Product Information

Primary Accession

### <u>P51164</u>

# ATP4B Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 496

**Other Names** 

Potassium-transporting ATPase subunit beta, Gastric H(+)/K(+) ATPase subunit beta, Proton pump beta chain, ATP4B

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.

# ATP4B Antibody (N-term) Blocking Peptide - Protein Information

Name ATP4B (HGNC:820)

#### Function

The beta subunit of the gastric H(+)/K(+) ATPase pump which transports H(+) ions in exchange for K(+) ions across the apical membrane of parietal cells. Plays a structural and regulatory role in the assembly and membrane targeting of a functionally active pump (By similarity). Within a transport cycle, the transfer of a H(+) ion across the membrane is coupled to ATP hydrolysis and is associated with a transient phosphorylation of the alpha subunit that shifts the pump conformation from inward-facing (E1) to outward-facing state (E2). Interacts with the phosphorylation domain of the alpha subunit and functions as a ratchet, stabilizing the lumenal-open E2 conformation and preventing the reverse reaction of the transport cycle (By similarity).

#### **Cellular Location**

Apical cell membrane {ECO:0000250|UniProtKB:P20648}; Single-pass type II membrane protein. Cell membrane {ECO:0000250|UniProtKB:P18597}; Single- pass type II membrane protein. Note=Localized in the apical canalicular membrane of parietal cells {ECO:0000250|UniProtKB:P20648}



# ATP4B Antibody (N-term) Blocking Peptide - Protocols

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

### Blocking Peptides

### ATP4B Antibody (N-term) Blocking Peptide - Images

### ATP4B Antibody (N-term) Blocking Peptide - Background

ATP4B belongs to a family of P-type cation-transporting ATPases. The gastric H+, K+-ATPase is a heterodimer consisting of a high molecular weight catalytic alpha subunit and a smaller but heavily glycosylated beta subunit. This enzyme is a proton pump that catalyzes the hydrolysis of ATP coupled with the exchange of H(+) and K(+) ions across the plasma membrane. It is also responsible for gastric acid secretion. This gene encodes the beta subunit of the gastric H+, K+-ATPase.

### ATP4B Antibody (N-term) Blocking Peptide - References

Bab-Dinitz, E., et al. Biochemistry 48(36):8684-8691(2009)Knouff, C.W., et al. Pharmacogenet. Genomics 18(12):1051-1057(2008)Oh, J.H., et al. Mamm. Genome 16(12):942-954(2005)