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VATC Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP1926c

Specification

VATC Antibody (Center) Blocking Peptide - Product Information

Primary Accession P21283

VATC Antibody (Center) Blocking Peptide - Additional Information

Gene ID 528

Other Names
V-type proton ATPase subunit C 1, V-ATPase subunit C 1, Vacuolar proton pump subunit C 1, ATP6V1C1, ATP6C, ATP6D, VATC

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1926c was selected from the Center region of human VATC. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

VATC Antibody (Center) Blocking Peptide - Protein Information

Name ATP6V1C1

Synonyms ATP6C, ATP6D, VATC

Function
Subunit of the V1 complex of vacuolar(H+)-ATPase (V-ATPase), a multisubunit enzyme composed of a peripheral complex (V1) that hydrolyzes ATP and a membrane integral complex (V0) that translocates protons (PubMed:33065002). V-ATPase is responsible for acidifying and maintaining the pH of intracellular compartments and in some cell types, is targeted to the plasma membrane, where it is responsible for acidifying the extracellular environment (By similarity). Subunit C is necessary for the assembly of the catalytic sector of the enzyme and is likely to have a specific function in its catalytic activity (By similarity).

Cellular Location
Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:Q5FVI6}; Peripheral membrane protein. Cytoplasmic vesicle, clathrin-coated vesicle membrane {ECO:0000250|UniProtKB:Q5FVI6}; Peripheral membrane protein

Tissue Location
Ubiquitous..

VATC Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

VATC Antibody (Center) Blocking Peptide - Images

VATC Antibody (Center) Blocking Peptide - Background

VATC is a component of vacuolar ATPase (V-ATPase), a multisubunit enzyme that mediates acidification of eukaryotic intracellular organelles. V-ATPase dependent organelle acidification is necessary for such intracellular processes as protein sorting, zymogen activation, receptor-mediated endocytosis, and synaptic vesicle proton gradient generation. V-ATPase is composed of a cytosolic V1 domain and a transmembrane V0 domain. The V1 domain consists of three A and three B subunits, two G subunits plus the C, D, E, F, and H subunits. The V1 domain contains the ATP catalytic site. The V0 domain consists of five different subunits: a, c, c', c', and d. Additional isoforms of many of the V1 and V0 subunit proteins are encoded by multiple genes or alternatively spliced transcript variants. This encoded protein is one of two V1 domain C subunit proteins and is found ubiquitously. This C subunit is analogous but not homologous to gamma subunit of F-ATPases.

VATC Antibody (Center) Blocking Peptide - References

Morel, N., Biol. Cell 95(7):453-457 (2003).Smith, A.N., et al., Mol. Cell 12(4):801-803 (2003).Izumi, H., et al., Biochim. Biophys. Acta 1628(2):97-104 (2003).Kawasaki-Nishi, S., et al., FEBS Lett. 545(1):76-85 (2003).Nishi, T., et al., Nat. Rev. Mol. Cell Biol. 3(2):94-103 (2002).