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ATP6V0A1 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP5109a

Specification

ATP6V0A1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q93050

ATP6V0A1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 535

Other Names
V-type proton ATPase 116 kDa subunit a isoform 1, V-ATPase 116 kDa isoform a1, Clathrin-coated vesicle/synaptic vesicle proton pump 116 kDa subunit, Vacuolar adenosine triphosphatase subunit Ac116, Vacuolar proton pump subunit 1, Vacuolar proton translocating ATPase 116 kDa subunit a isoform 1, ATP6V0A1, ATP6N1, ATP6N1A, VPP1

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.

ATP6V0A1 Antibody (N-term) Blocking Peptide - Protein Information

Name ATP6V0A1

Synonyms ATP6N1, ATP6N1A, VPP1

Function
Subunit of the V0 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 transports protons across cellular membranes. V-ATPase is responsible for the acidification of various organelles, such as lysosomes, endosomes, the trans-Golgi network, and secretory granules, including synaptic vesicles (PubMed:33065002, PubMed:33833240, PubMed:34909687). In certain cell types, can be exported to the plasma membrane, where it is involved in the acidification of the extracellular environment (By similarity). Required for assembly and activity of the vacuolar ATPase (By similarity). Through its action on compartment acidification, plays an essential role in neuronal development in terms of integrity and connectivity of neurons (PubMed:33833240).

Cellular Location
Cytoplasmic vesicle, clathrin-coated vesicle membrane {ECO:0000250|UniProtKB:P25286}; Multi-pass membrane protein. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:P25286}; Multi-pass membrane protein. Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

ATP6V0A1 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

ATP6V0A1 Antibody (N-term) Blocking Peptide - Images

ATP6V0A1 Antibody (N-term) Blocking Peptide - Background

ATP6V0A1 encodes 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 gene encodes one of three A subunit proteins and the encoded protein is associated with clathrin-coated vesicles.

ATP6V0A1 Antibody (N-term) Blocking Peptide - References

Antonacopoulou, A.G., et al. Anticancer Res. 28 (2B), 1221-1227 (2008) Norgett, E.E., et al. J. Biol. Chem. 282(19):14421-14427(2007)Chi, A., et al. J. Proteome Res. 5(11):3135-3144(2006)