

ATP6V1A Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP9778b**Specification**

ATP6V1A Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [P38606](#)**ATP6V1A Antibody (Center) Blocking Peptide - Additional Information**

Gene ID 523

Other Names

V-type proton ATPase catalytic subunit A, V-ATPase subunit A, V-ATPase 69 kDa subunit, Vacuolar ATPase isoform VA68, Vacuolar proton pump subunit alpha, ATP6V1A, ATP6A1, ATP6V1A1, VPP2

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.

ATP6V1A Antibody (Center) Blocking Peptide - Protein Information

Name ATP6V1A

Synonyms ATP6A1, ATP6V1A1, VPP2

Function

Catalytic 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:8463241). 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 (PubMed:32001091). In aerobic conditions, involved in intracellular iron homeostasis, thus triggering the activity of Fe(2+) prolyl hydroxylase (PHD) enzymes, and leading to HIF1A hydroxylation and subsequent proteasomal degradation (PubMed:28296633). May play a role in neurite development and synaptic connectivity (PubMed:29668857).

Cellular Location

Cytoplasm. Cytoplasm, cytosol {ECO:0000250|UniProtKB:P50516}. Cytoplasmic vesicle, secretory vesicle. Cytoplasmic vesicle, clathrin-coated vesicle membrane {ECO:0000250|UniProtKB:P31404}; Peripheral membrane protein. Lysosome {ECO:0000250|UniProtKB:P50516} Note=Co-localizes with WFS1 in the secretory granules in neuroblastoma cell lines.

Tissue Location

High expression in the skin.

ATP6V1A Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

ATP6V1A Antibody (Center) Blocking Peptide - Images**ATP6V1A Antibody (Center) Blocking Peptide - Background**

This gene 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 encoded protein is one of two V1 domain A subunit isoforms and is found in all tissues.

ATP6V1A Antibody (Center) Blocking Peptide - References

Martins-de-Souza, D., et al. J Psychiatr Res 43(11):978-986(2009) Martins-de-Souza, D., et al. BMC Psychiatry 9, 17 (2009) Lu, M., et al. J. Biol. Chem. 282(34):24495-24503(2007) Ahmed, M., et al. J. Proteome Res. 4(3):931-940(2005) Morel, N. Biol. Cell 95(7):453-457(2003)