

KD-Validated Anti-ATP6V1A Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI1982

Product Information

Application	WB, FC, ICC
Primary Accession	P38606
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB6940
Calculated MW	68304
Gene Name	ATP6V1A
Aliases	ATP6V1A; ATPase H ⁺ Transporting V1 Subunit A; V-ATPase Subunit A; ATP6V1A1; ATP6A1; Vma1; VA68; VPP2; ATPase, H ⁺ Transporting, Lysosomal 70kDa, V1 Subunit A; V-Type Proton ATPase (V-ATPase) Catalytic Subunit A; V-Type Proton ATPase Catalytic Subunit A; Vacuolar Proton Pump Subunit Alpha; ATPase, H ⁺ Transporting, Lysosomal (Vacuolar Proton Pump), Alpha Polypeptide, 70kD, Isoform 1; H ⁺ -Transporting ATPase Chain A, Vacuolar (VA68 Type); ATPase, H ⁺ Transporting, Lysosomal, Subunit A1; H(+)-Transporting Two-Sector ATPase, Subunit A; Vacuolar Proton Pump Alpha Subunit 1; Vacuolar ATPase Isoform VA68; V-ATPase 69 kDa Subunit 1; Vacuolar-Type H(+)-ATPase; V-ATPase 69 kDa Subunit; V-ATPase A Subunit 1; EC 3.6.3.14; EC 7.1.2.2; EC 3.6.3; ARCL2D; IECEE3; DEE93; HO68
Immunogen	Recombinant protein of human ATP6V1A

Additional Information

Gene ID	523
Other Names	V-type proton ATPase catalytic subunit A, V-ATPase subunit A, 7.1.2.2, V-ATPase 69 kDa subunit, Vacuolar ATPase isoform VA68, Vacuolar proton pump subunit alpha, ATP6V1A, ATP6A1, ATP6V1A1, VPP2

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 , PubMed: 22053050). 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 promotes acidification of the extracellular environment (PubMed: 32001091). The V-ATPase complex also

acts as an activator for mTORC1 on lysosomal membrane by promoting the guanine nucleotide exchange factor (GEF) of the Ragulator complex, thereby enabling mTORC1 recruitment (PubMed:[22053050](#)). 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 membrane; Peripheral membrane protein. Note=Co-localizes with WFS1 in the secretory granules in neuroblastoma cell lines

Tissue Location

High expression in the skin.

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