10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ATP6V0D1/P39 Rabbit mAb

Catalog # AP75128

Product Information

Application	WB, IHC-P, IHC-F, FC, IP
Primary Accession	P61421
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	40329

Additional Information

Gene ID	9114
Other Names	ATP6V0D1
Dilution	WB~~1:500-1:1000 IHC-P~~N/A IHC-F~~N/A FC~~1:50-1:100 IP~~1:20-1:50
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

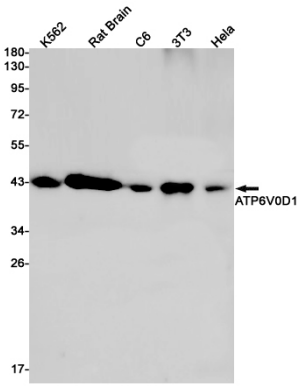
Name	ATP6V0D1 (HGNC:13724)
Synonyms	ATP6D, VPATPD
Function	Subunit of the V0 complex of vacuolar(H+)-ATPase (V-ATPase), a multisubunit enzyme composed of a peripheral complex (V1) that hydrolyzes ATP and a membrane integral complex (V0) that translocates protons (PubMed:28296633, PubMed:30374053, PubMed:33065002). 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 promotes acidification of the extracellular environment (PubMed:30374053). 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). May play a role in coupling of proton transport and ATP hydrolysis (By similarity). 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 cilium biogenesis through regulation of the transport and the localization of proteins to the cilium (By similarity).
Cellular Location	Membrane; Peripheral membrane protein; Cytoplasmic side. Lysosome membrane; Peripheral membrane protein. Cytoplasmic vesicle, clathrin-coated vesicle membrane {ECO:0000250|UniProtKB:P61420}; Peripheral membrane protein. Note=Localizes to centrosome and the base of the cilium. {ECO:0000250|UniProtKB:Q6PGV1}
Tissue Location	Ubiquitous.

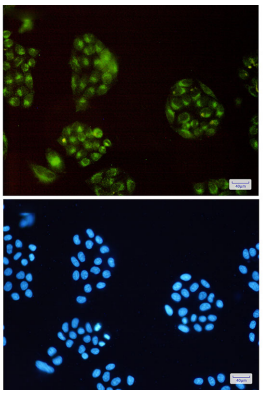
Background

Subunit of the integral membrane V0 complex of vacuolar ATPase. Vacuolar ATPase is responsible for acidifying a variety of intracellular compartments in eukaryotic cells, thus providing most of the energy required for transport processes in the vacuolar system. May play a role in coupling of proton transport and ATP hydrolysis . May play a role in cilium biogenesis through regulation of the transport and the localization of proteins to the cilium . In aerobic conditions, involved in intracellular iron homeostasis, thus triggering the activity of Fe2+ prolyl hydroxylase (PHD) enzymes, and leading to HIF1A hydroxylation and subsequent proteasomal degradation (PubMed:28296633).

Images



Western blot analysis of ATP6V0D1 in K562, rat Brain, C6, 3T3, Hela lysates using ATP6V0D1 antibody.



Immunocytochemistry analysis of ATP6V0D1(green) in Hela using ATP6V0D1 antibody,and DAPI(blue)

Immunohistochemistry analysis of paraffin-embedded Human colon cancer using ATP6V0D1 antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.