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ATP6V1A Rabbit mAb

Catalog # AP75129

Product Information

Application	WB, IHC-P, FC, IP
Primary Accession	P38606
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	68304

Additional Information

Gene ID	523
Other Names	ATP6V1A
Dilution	WB~~1:500-1:1000 IHC-P~~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

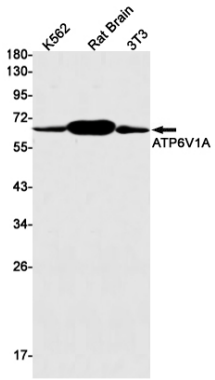
Name	ATP6V1A
Synonyms	ATP6A1, ATP6V1A1, VPP2
Function	Catalytic subunit of the V1 complex of vacuolar(H+)-ATPase (V-ATPase), a multisubunit enzyme composed of a peripheral complex (V1) that hydrolyzes ATP and a membrane integral complex (V0) that translocates protons (PubMed:8463241, PubMed:22053050). 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.

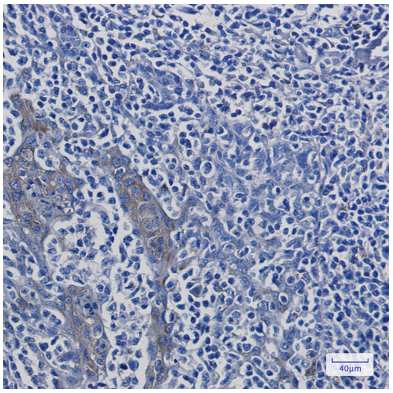
Background

Catalytic subunit of the peripheral V1 complex of vacuolar ATPase. V-ATPase vacuolar ATPase is responsible for acidifying a variety of intracellular compartments in eukaryotic cells. 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). May play a role in neurite development and synaptic connectivity (PubMed:29668857).

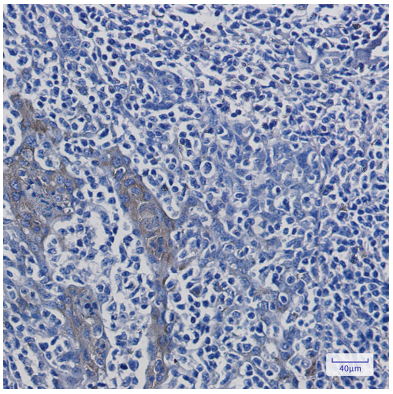
Images

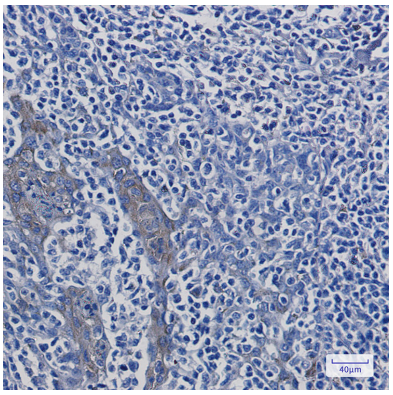


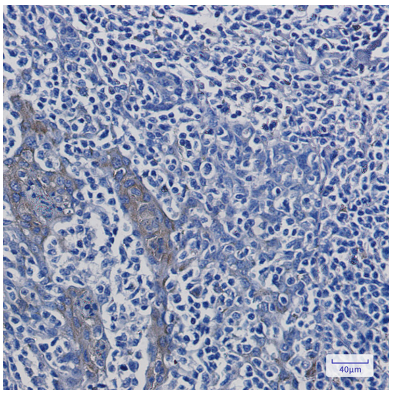
Western blot analysis of ATP6V1A in K562, rat Brain, 3T3 lysates using ATP6V1A antibody.



Immunohistochemistry analysis of paraffin-embedded Human tonsil using ATP6V1A antibody.High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.







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