ATP6V1B1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ATP6V1B1, Polyclonal Antibody
Full Product Name	ATP6V1B1, ID (ATP6V1B1, ATP6B1, VATB, VPP3, V-type proton ATPase subunit B, kidney isoform, Endomembrane proton pump 58kD subunit, Vacuolar proton pump subunit B 1) (MaxLight 490)
Product Gene Name	anti-ATP6V1B1 antibody
Product Synonym Names	ATP6V1B1; ATP6B1; VATB; VPP3; V-type proton ATPase subunit B; kidney isoform; Endomembrane proton pump 58kD subunit; Vacuolar proton pump subunit B 1
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	56,833 Da
Chromosome Location	Chromosome: 2; NC_000002.11 (71162998..71192561). Location: 2p13.1
OMIM	192132
3D Structure	ModBase 3D Structure for P15313
Immunogen	ATP6V1B1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 291-318 amino acids from the Central region of human ATP6V1B1.
Conjugate	MaxLight490
Note	Preservative Free
Product Categories/Family for anti-ATP6V1B1 antibody	Antibodies; Enzymes; ATPase
Applications Tested/Suitable for anti-ATP6V1B1 antibody	Immunofluorescence (IF), FLISA, Immunohistochemistry (IHC), Western Blot (WB)
Application Notes for anti-ATP6V1B1 antibody	IF: 1:10-50 FLISA: 1:1,000 IHC: 1:10-50 WB: 1:100-500 Applications are based on unconjugated antibody.
Related Product Information for anti-ATP6V1B1 antibody	MaxLight490 is a new Blue-Green photostable dye conjugate comparable to DyLight488, Alexa Fluor488 and offers better labeling efficiency, brighter imaging and increased immunodetection. Absorbance (491nm); Emission (515nm); Extinction Coefficient 73,000.

Product References and Citations for anti-ATP6V1B1 antibody	Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010). Sharifian, M., et al. Iran J Kidney Dis 4(3):202-206(2010). Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009). Andreucci, E., et al. Pediatr. Nephrol. 24(11):2147-2153(2009). Sethi, S.K., et al. Indian Pediatr 46(5):425-427(2009).
Other Notes	Small volumes of anti-ATP6V1B1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ATP6V1B1 purchase	MBS6276684 is an antibody targeting ATP6V1B1. Also known as ATP6V1B1, ID (ATP6V1B1, ATP6B1, VATB, VPP3, V-type proton ATPase subunit B, kidney isoform, Endomembrane proton pump 58kD subunit, Vacuolar proton pump subunit B 1) (MaxLight 490). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ATP6V1B1. It may not necessarily be applicable to this product.

NCBI GI #	19913426
NCBI GeneID	525
NCBI Accession #	NP_001683.2
UniProt Primary Accession #	P15313
UniProt Secondary Accession #	Q53FY0; Q6P4H6
UniProt Related Accession #	P15313
GenBank Nucleotide #	NM_001692.3
NCBI Official Full Name	V-type proton ATPase subunit B, kidney isoform
NCBI Official Synonym Full Names	ATPase, H+ transporting, lysosomal 56/58kDa, V1 subunit B1
NCBI Official Symbol	ATP6V1B1
NCBI Official Synonym Symbols	VATB; VMA2; VPP3; RTA1B; ATP6B1
UniProt Protein Name	V-type proton ATPase subunit B, kidney isoform
UniProt Synonym Protein Names	Endomembrane proton pump 58 kDa subunit; Vacuolar proton pump subunit B 1
Protein Family	V-type proton ATPase
UniProt Gene Name	ATP6V1B1
UniProt Synonym Gene Names	ATP6B1; VATB; VPP3; V-ATPase subunit B 1
UniProt Entry Name	VATB1_HUMAN
NCBI Protein Information	V-type proton ATPase subunit B, kidney isoform; V-ATPase B1 subunit; V-ATPase subunit B 1; vacuolar proton pump 3; H+-ATPase beta 1 subunit; vacuolar proton pump, subunit 3; vacuolar proton pump subunit B 1; endomembrane proton pump 58 kDa subunit; H(+)-t
NCBI Summary for ATP6V1B1	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 B subunit isoforms and is found in the kidney. Mutations in this gene cause distal renal tubular acidosis associated with sensorineural deafness. [provided by RefSeq, Jul 2008]

UniProt Comments for ATP6V1B1	ATP6V1B1: Non-catalytic subunit of the peripheral V1 complex of vacuolar ATPase. V-ATPase is responsible for acidifying a variety of intracellular compartments in eukaryotic cells. Defects in ATP6V1B1 are the cause of distal renal tubular acidosis with deafness (dRTA-D). Inheritance is autosomal recessive. Patients with recessive dRTA are severely affected, presenting with either acute illness or growth failure at a young age, and bilateral sensorineural deafness. Other features include low serum K(+) due to renal potassium wasting, and elevated urinary calcium. If untreated, this acidosis may result in dissolution of bone, leading to osteomalacia and rickets. Renal deposition of calcium salts (nephrocalcinosis) and renal stone formation commonly occur. Belongs to the ATPase alpha/beta chains family. Protein type: Hydrolase; EC 3.6.3.14; Energy Metabolism - oxidative phosphorylation Chromosomal Location of Human Ortholog: 2p13.1 Cellular Component: microvillus; basolateral plasma membrane; apical plasma membrane; cytoplasm; endomembrane system; vacuolar proton-transporting V-type ATPase complex; cytosol; lateral plasma membrane Molecular Function: protein complex binding; hydrogen ion transmembrane transporter activity; hydrolase activity, acting on acid anhydrides, catalyzing transmembrane movement of substances; ATP binding Biological Process: interaction with host; inner ear morphogenesis; ossification; cellular iron ion homeostasis; transferrin transport; excretion; calcium ion homeostasis; ATP metabolic process; proton transport; sensory perception of sound; ATP hydrolysis coupled proton transport; pH reduction; insulin receptor signaling pathway; regulation of pH; transmembrane transport Disease: Renal Tubular Acidosis, Distal, With Progressive Nerve Deafness
Research Articles on ATP6V1B1	**1.** Only two ATP6V1B1 mutations are found in a Cypriot population with distal renal tubular acidosis.
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