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## ATP6V0A1 Rabbit pAb

Catalog Number: bs-7410R

Target Protein: ATP6V0A1

Concentration: 1mg/ml

Form: Liquid

Host: Rabbit

Clonality: Polyclonal

Isotype: IgG

Applications: IHC-P (1:100-500), IHC-F (1:100-500), IF (1:100-500)

Reactivity: Human (predicted: Mouse, Rat, Rabbit, Pig, Sheep, Cow, Dog, Horse)

Predicted MW: 96 kDa

Entrez Gene: 535

Swiss Prot: Q93050

Source: KLH conjugated synthetic peptide derived from human V-ATPase A1: 41-140/837.

Purification: affinity purified by Protein A

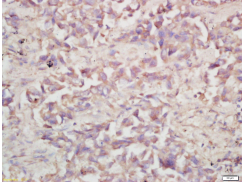
Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

**Background:** The subunit of the vacuolar proton pump is a V-ATPase that has two different isoforms. The type I isoform contains an 18-base pair insert and is expressed in brain, whereas the truncated type II isoform is more widely expressed, including lung, kidney and spleen. The subunit of the vacuolar proton pump is located in clathrin-coated vesicles and is also found in osteoclasts. It consists of two fundamental domains, a hydrophilic amino-terminus, which has greater than 30% charged residues, and a hydrophobic carboxy terminus, which contains at least six transmembrane regions. The proton pump functions in coupling ATP hydrolysis by the cytoplasmic subunits to proton translocation by the intramembraneous components of the pump. The inactivation of the osteoclast-specific vacuolar proton ATPase subunit is responsible for the lack of the enzyme in the apical membranes of osteoclast cells in osteosclerotic mutant mice, thus preventing the resorption function of these cells and leading to the osteopetrotic phenotype. The subunit, which co-localizes with the late endosomal marker Rab7 on vacuolar membranes, is essential for vacuole formation by selective swelling of late endosomes.

### VALIDATION IMAGES

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Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-V-ATPase A1 Polyclonal Antibody, Unconjugated(bs-7410R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

## PRODUCT SPECIFIC PUBLICATIONS

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**[IF=7.088]** Xinyi Qi. et al. Briarane-type diterpenoids, the inhibitors of osteoclast formation by interrupting Keap1-Nrf2 interaction and activating Nrf2 pathway. EUR J MED CHEM. 2023 Jan;246:114948 **WB ; Mouse** . 36446206