

## Rabbit Anti-V-ATPase A1 Polyclonal Antibody, Cy7 Conjugated

## — D A T A S H E E T —

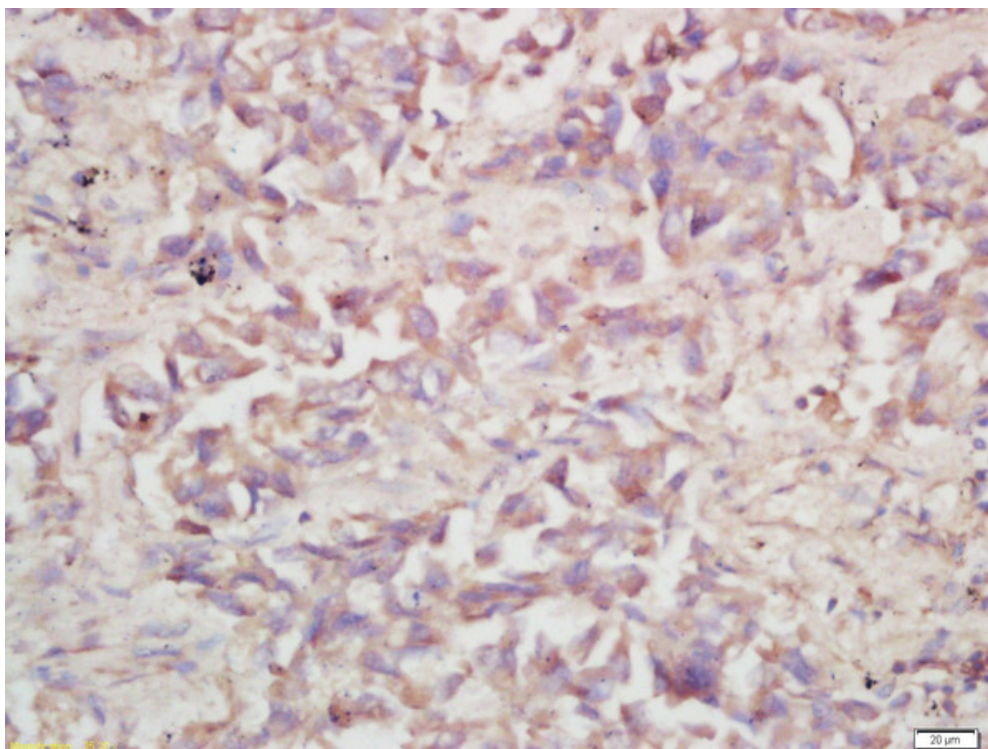
**Host:** Rabbit**Target Protein:** V-ATPase A1**Clonality:** Polyclonal**Isotype:** IgG**Entrez Gene:****Swiss Prot:****Source:** KLH conjugated synthetic peptide derived from human V-ATPase A1**Purification:** Purified by Protein A.**Storage:** Aqueous buffered solution containing 100ug/ml BSA, 50% glycerol and 0.09% sodium azide. Store at 4°C for 12 months.

**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 intramembranous 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.

**Conjugation:** Cy7**Excitation/** 743nm/767nm**Emission:****Size:** 100ul**Concentration:** 1ug/ul**Applications:** IF(IHC-P)(1:50-200)**Cross Reactive** Human**Species:** Mouse

Rat

Caution: For research use only. Not for human or animal therapeutic or diagnostic use.

— V A L I D A T I O N —  
I M A G E S

Formalin-fixed and paraffin embedded human lung carcinoma labeled with Rabbit Anti-V-ATPase A1 Polyclonal Antibody, Unconjugated (bs-7410R) at 1:200 followed by conjugation to the secondary antibody and DAB staining