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Product datasheet for KN301804

Atp6ap1 Mouse Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 GFP-puro donor, 1 scramble control

Donor DNA: GFP-puro

Symbol: Atp6ap1

Locus ID: 54411

Components: **KN301804G1**, Atp6ap1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CAGGGCGGGCTCCAGTCATG
KN301804G2, Atp6ap1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GTGGCTGTCTCTGTCGTTGG
KN301804D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.
Homologous arm and GFP-puro sequences:
pUC vector backbone in gray; Left arm sequence in blue; GFP-puro in green; Right arm in violet

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GE100003, scramble sequence in pCas-Guide vector

Disclaimer: These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

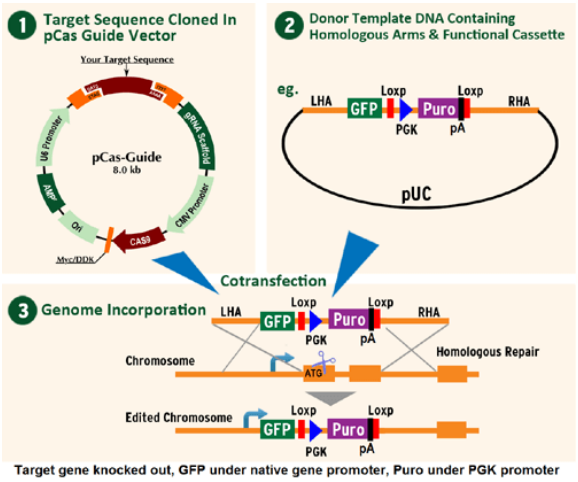
RefSeq: NM_018794, NM_001358375, NM_001358380

UniProt ID: Q9R1Q9

Synonyms: 16A; AC45; AI316502; Atp6ip1; Atp6s1; AW108110; C7-1; CF2; mFLJ00383; VATPS1; XAP-3

Summary: Accessory subunit of the proton-transporting vacuolar (V)-ATPase protein pump, which is required for luminal acidification of secretory vesicles. Guides the V-type ATPase into specialized subcellular compartments, such as neuroendocrine regulated secretory vesicles or the ruffled border of the osteoclast, thereby regulating its activity. Involved in membrane trafficking and Ca(2+)-dependent membrane fusion. May play a role in the assembly of the V-type ATPase complex. 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 (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Target gene knocked out, GFP under native gene promoter, Puro under PGK promoter