



**Fig. S2. Generation and characterization of Hv1 gene (*Hvcn1*) Knockout mice. a**

Schematic of the WT allele and the constitutive knockout (*Hvcn1*<sup>-/-</sup>) allele in the targeted area.

Primer F1 (5'-GAGACTGGGCTGTAGTACCGTTG-3') and R1

(5'-AAAAGATGGCCTGGAGCTGC-3') were used to detect KO allele (product size: 411-bp)

and Primer F1 and R2 (5'-GACCTCTCACTCTTACCTGAAA-3') were used to detect

WT allele (product sizes: 536-bp). **b** Genotypes of WT, *Hvcn1*<sup>-/-</sup>, *Hvcn1*<sup>+/-</sup> for the constitutive

knock out mice. Primer sequence, Foward: 5'-CACATCAGCAGAGGGTGAGG-3', Reverse:

5'-CAGGAGGAGTTCAGCAAGCA-3'.