## **Supplementary Data**

Kir6.2 primers: sense 5'- TAG GCC AAG CCA GTG TAG TG -3', antisense 5'- GTG GTG AAC ACA TCC TGC AG -3'; UCP2 primers: sense 5'- GAC TGC CTT GGG AAA AGC GCC T -3', antisense 5'- CTC AGA AAG GTG CCT CCC GA -3'. Wild type Kir6.2<sup>4.</sup> Wild type UCP2<sup>4.</sup>



**SUPPLEMENTARY FIG. S1.** The expressions of Kir6.2 and UCP2 in the midbrain of wildtype,  $Kir6.2^{-/-}$  and  $Ucp2^{-/-}$  mice.