

Supplementary Figures for

CD73 and AMPD3 deficiency enhance metabolic performance via erythrocyte ATP that decreases hemoglobin oxygen affinity

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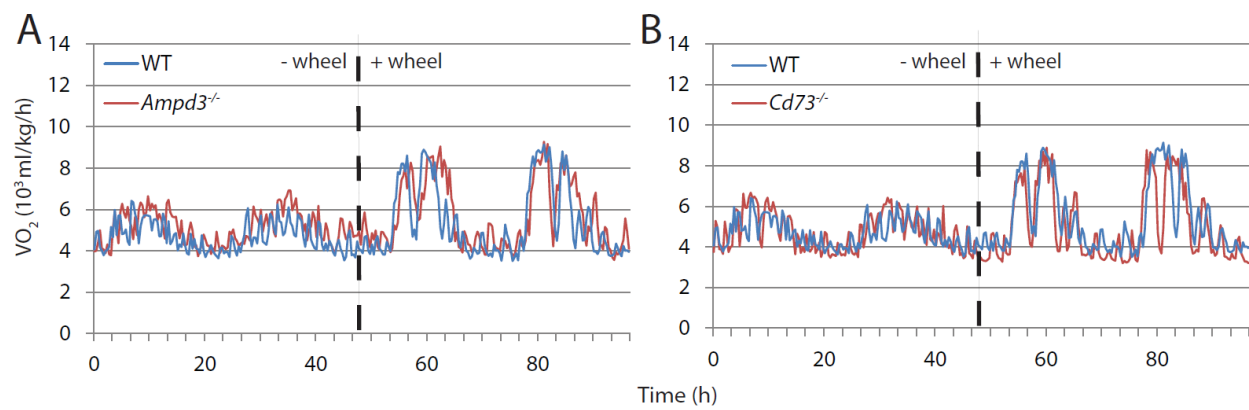


Figure S1, Comparing oxygen consumption of WT mice to *Ampd3*^{-/-} (A) and *Cd73*^{-/-} (B) with and without running wheel over periods of 48 h.

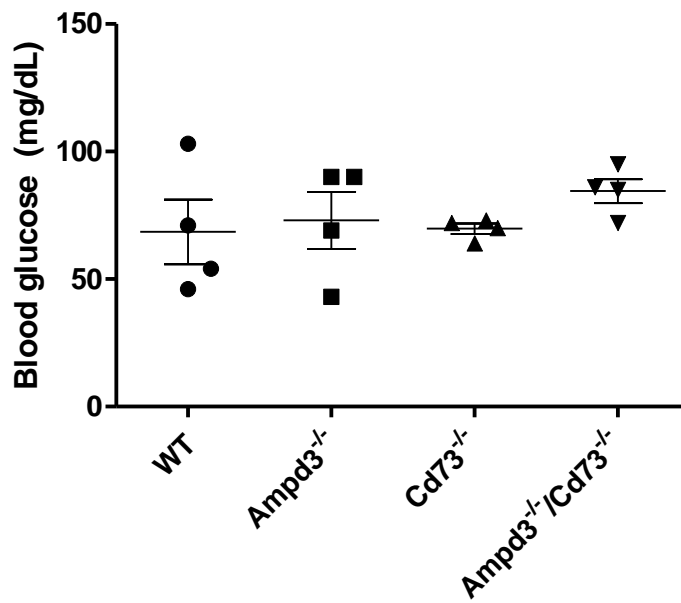


Figure S2. Fasting blood glucose levels. Mice from the four genotypes (n=4) were fasted overnight and blood obtained by tail clipping. Blood glucose was measured using a TrueTrack meter (Nipro Diagnostics, FL, USA), following manufacturer's instructions.

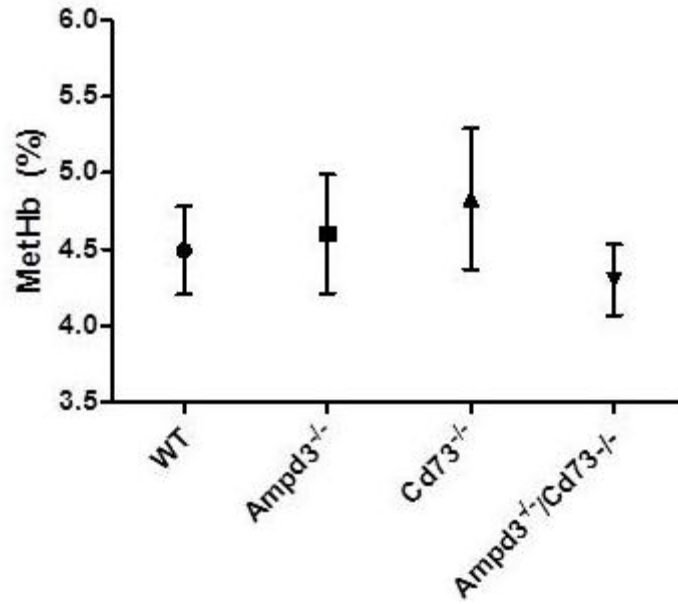


Figure S3. Methemoglobin (MetHb) levels in four genotypes, (n=4). The erythrocyte methHb levels are comparable among the four genotypes.

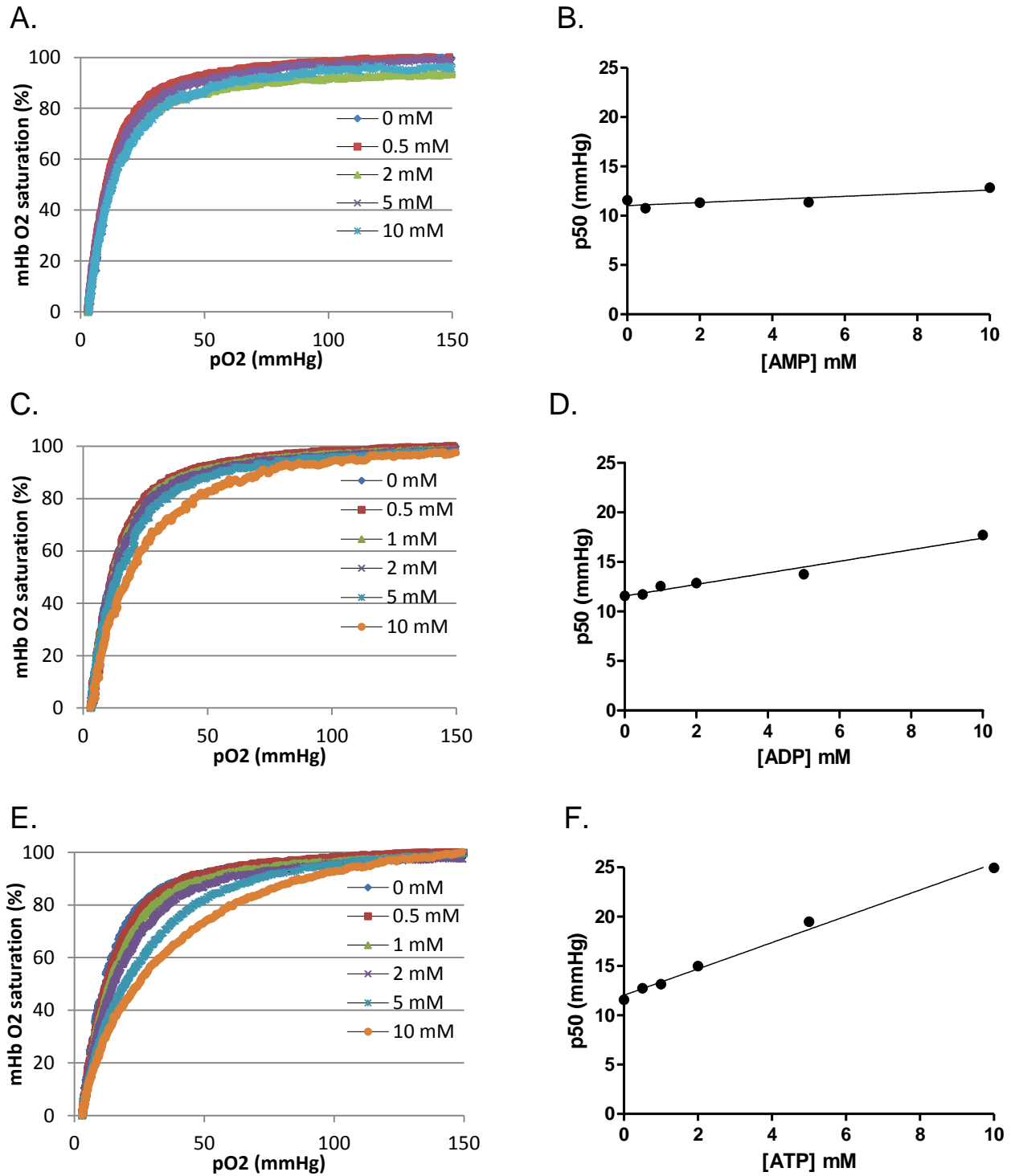


Figure S4. Adenine nucleotides' effects on p50 of mouse hemoglobin. Adenine nucleotide titrations of mouse hemoglobin p50: A and B. 5'-AMP ($m=0.16 \pm 0.05$, $r^2=0.73$); C and D. ADP, ($m=0.58 \pm 0.05$, $r^2=0.97$) and E and F. ATP ($m=1.33 \pm 0.06$, $r^2=0.99$).

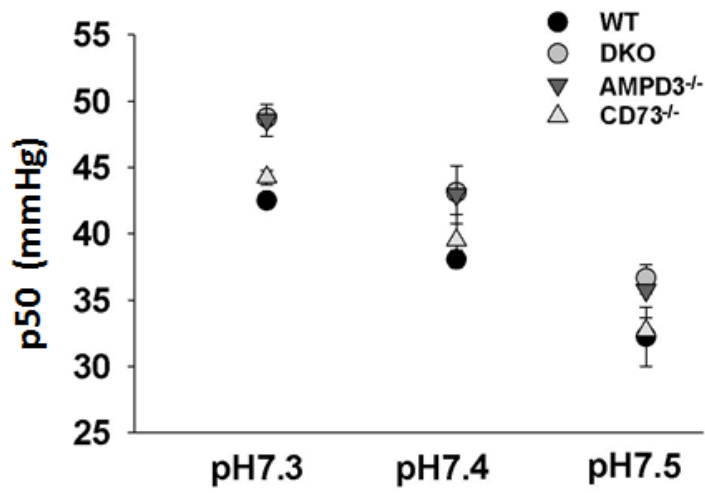


Figure S5. Change in Hemox buffer pH and p50 values of mouse erythrocytes of the four genotypes [n=2, DKO (double knockout): *AMPD3*^{-/-}/*Cd73*^{-/-}].

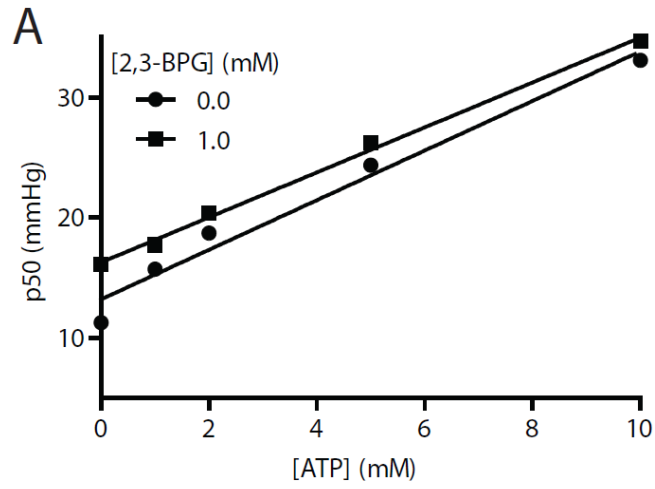


Figure S6, ATP's efficacy on Hemoglobin p50 is unchanged by addition of 2,3-BPG.
ATP titration against human hemoglobin p50 in the presence and absence of 1mM 2,3-BPG.