

Supplementary Appendix

**Effect of endurance training and PGC-1 $\alpha$  overexpression on calculated lactate production volume during exercise based on blood lactate concentration**

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This supplementary appendix was created by authors to provide the validity of calculated  $k$  and all original gel/blot images for review.

Fig. S1A is a representative example showing that Eq. (1) with  $k$  fits the experimental data.

Fig. S1B is the simulation result showing that  $k$  represents the lactate uptake capacity.

Fig. S2 is the original gel/blots shown in figure 3 of the main manuscript.

Fig. S3 is the original gel/blots shown in figure 4 of the main manuscript.

Fig. S4 is the original gel/blots shown in figure 6 of the main manuscript.

Fig. S5 is representative Ponceau stains for each sample

Fig. S1. The validity of calculated  $k$

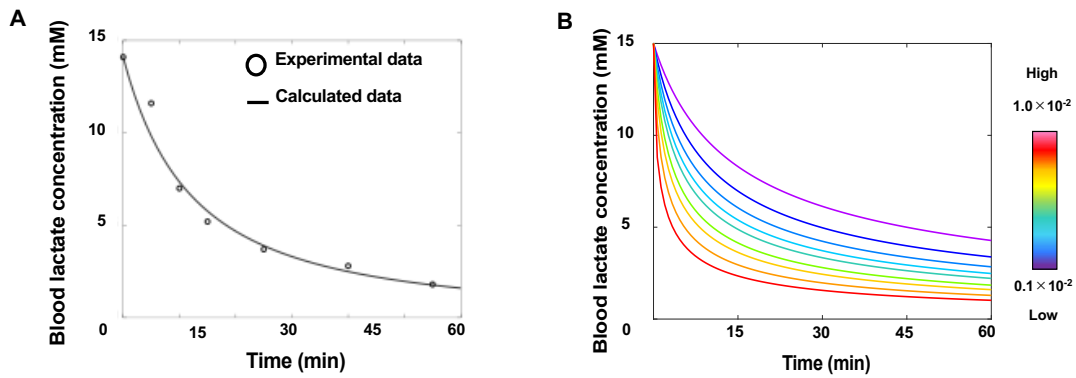
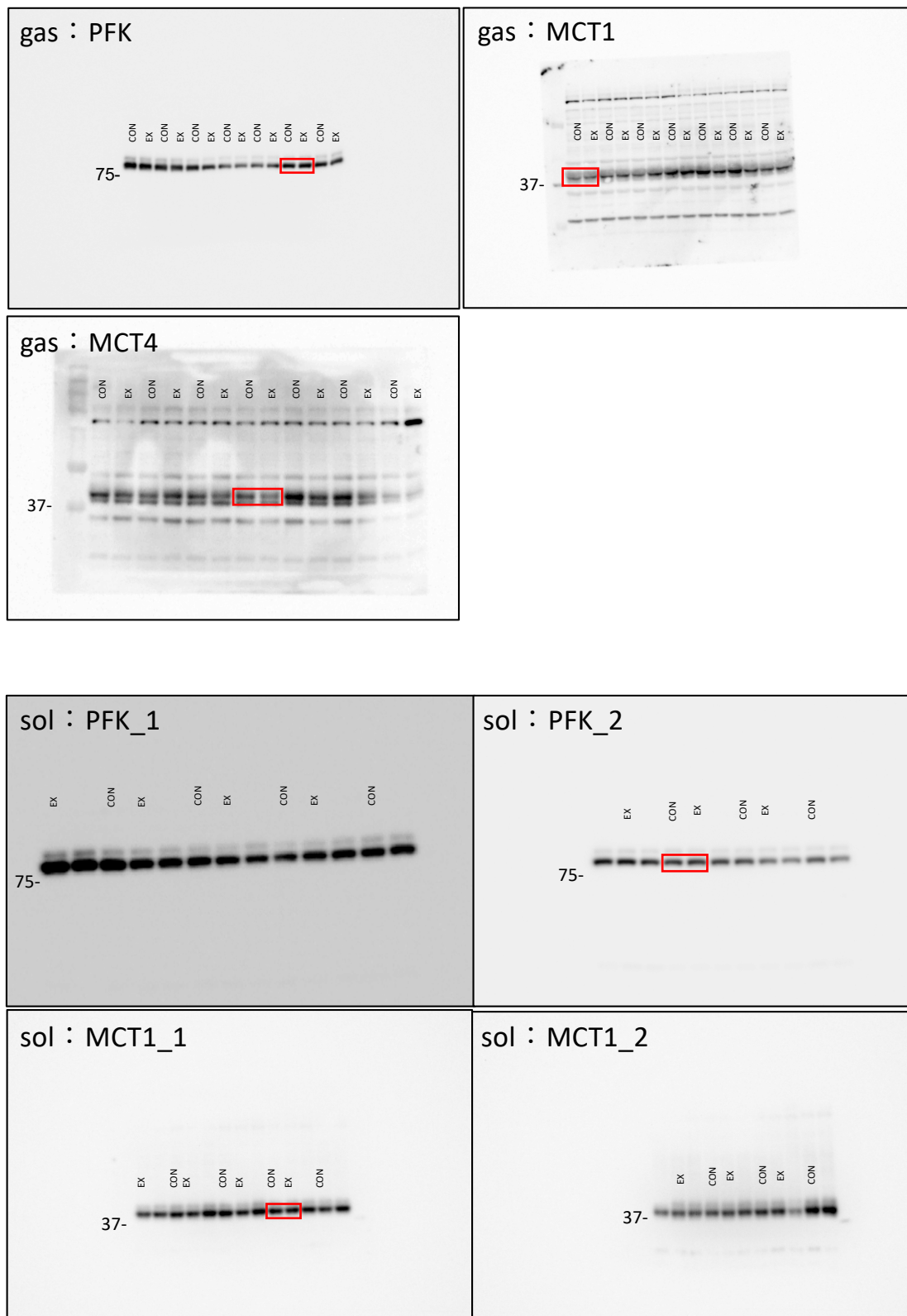
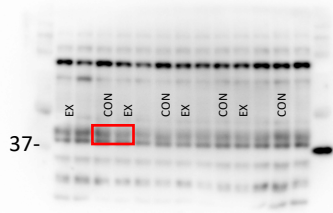


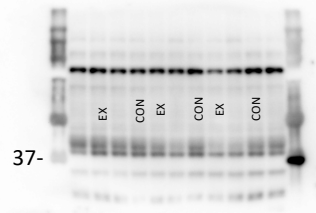
Fig. S2. Effect of 6-week endurance exercise training in the gastrocnemius (gas), soleus (sol), and plantaris (pla) muscles. The images of sol and pla are turned upside down in order to keep the order of the samples the same.



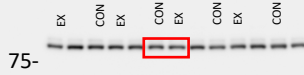
sol : MCT4\_1



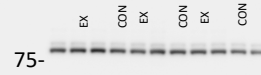
sol : MCT4\_2



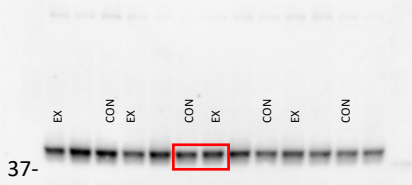
pla : PFK\_1



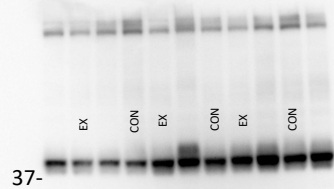
pla : PFK\_2



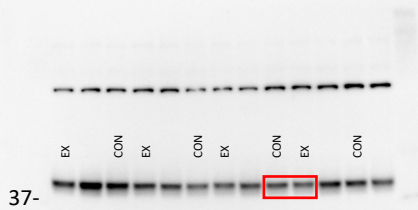
pla : MCT1\_1



pla : MCT1\_2



pla : MCT4\_1



pla : MCT4\_2

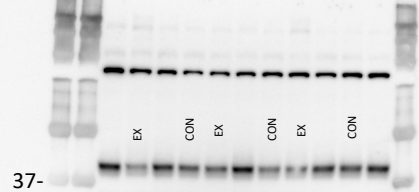


Fig. S3. Effect of skeletal muscle-specific PGC-1 $\alpha$  overexpression in the gastrocnemius (gas),

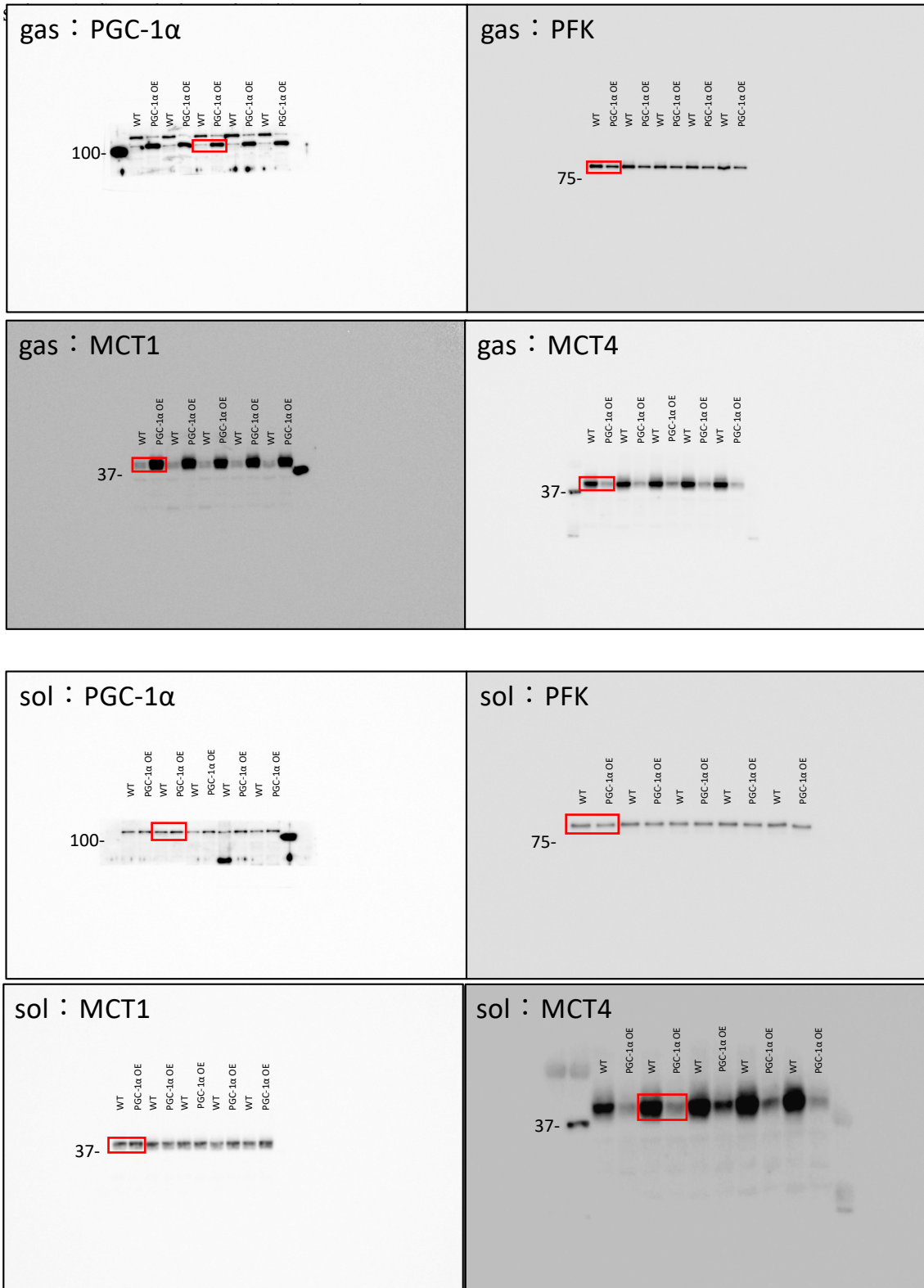
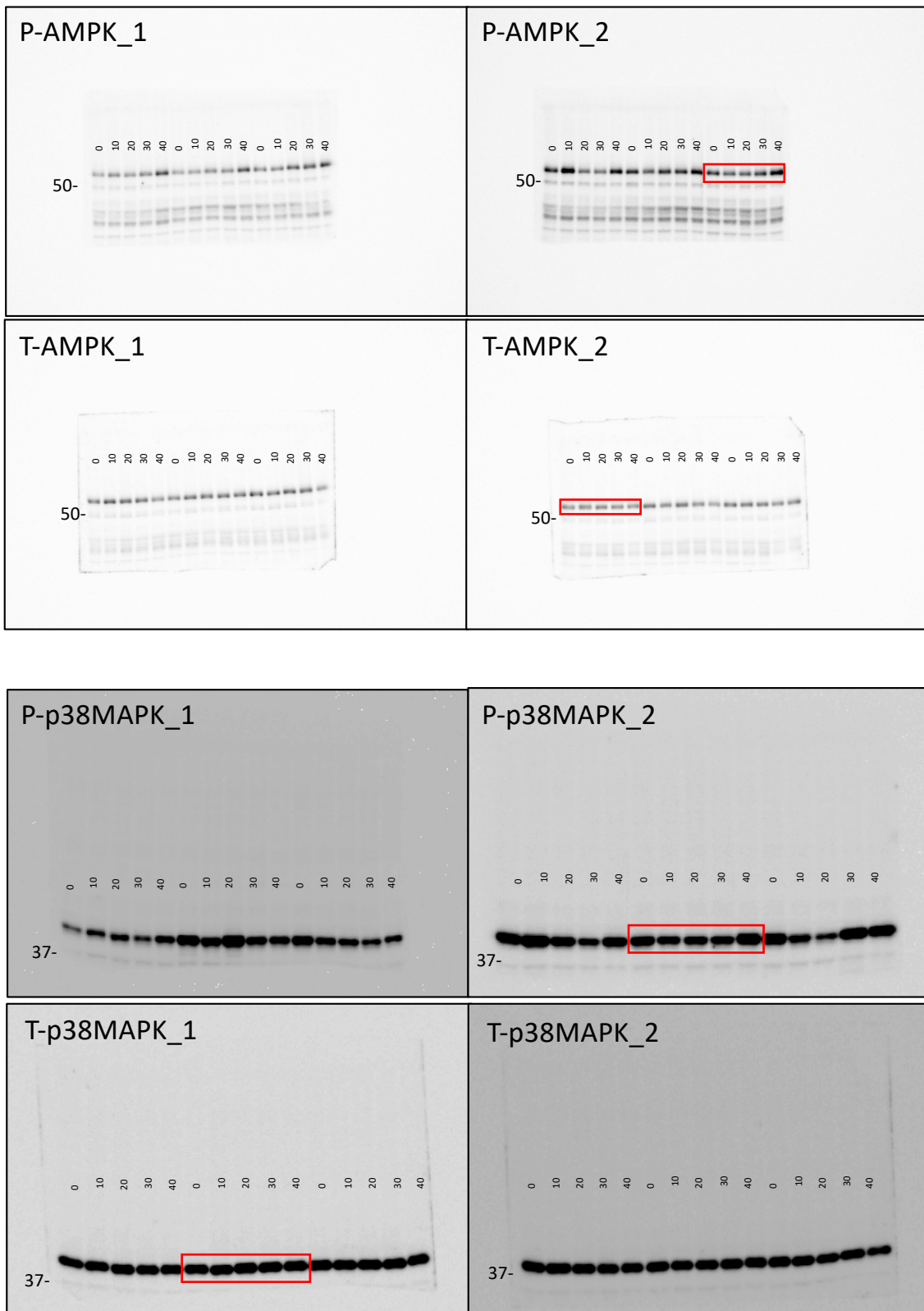
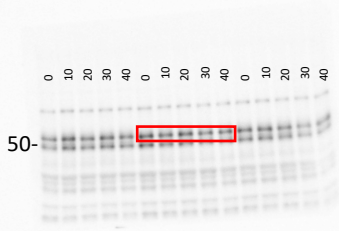




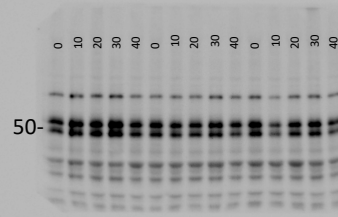
Fig. S4. Acute response to various exercise intensities.



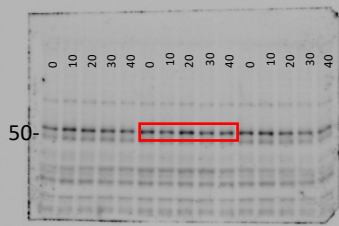
P-CaMKII\_1



P-CaMKII\_2



T-CaMKII\_1



T-CaMKII\_2

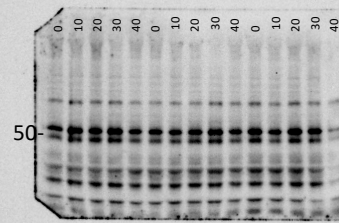




Fig. S5. Representative Ponceau stains for each sample

