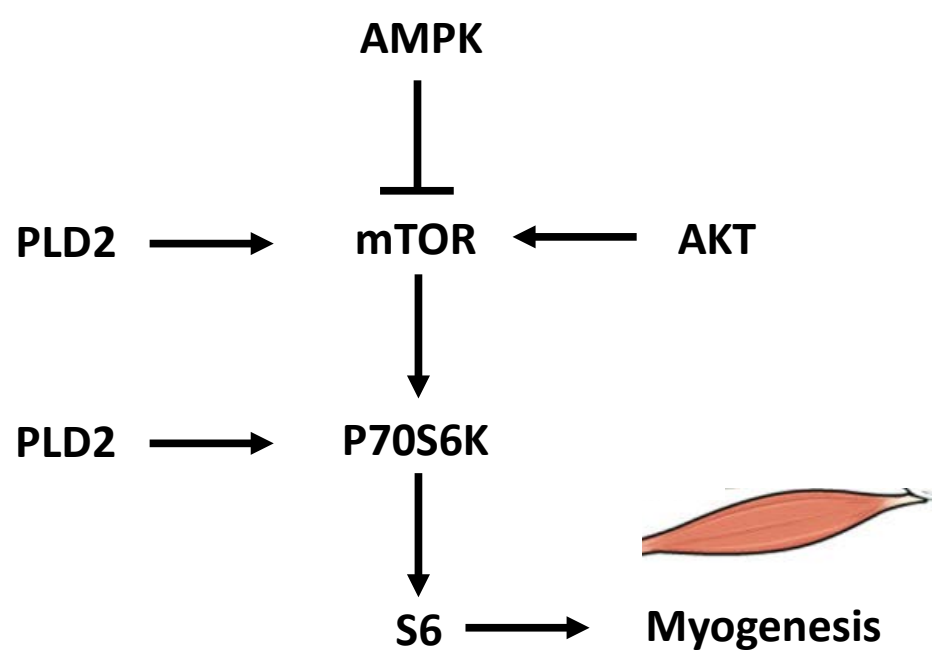
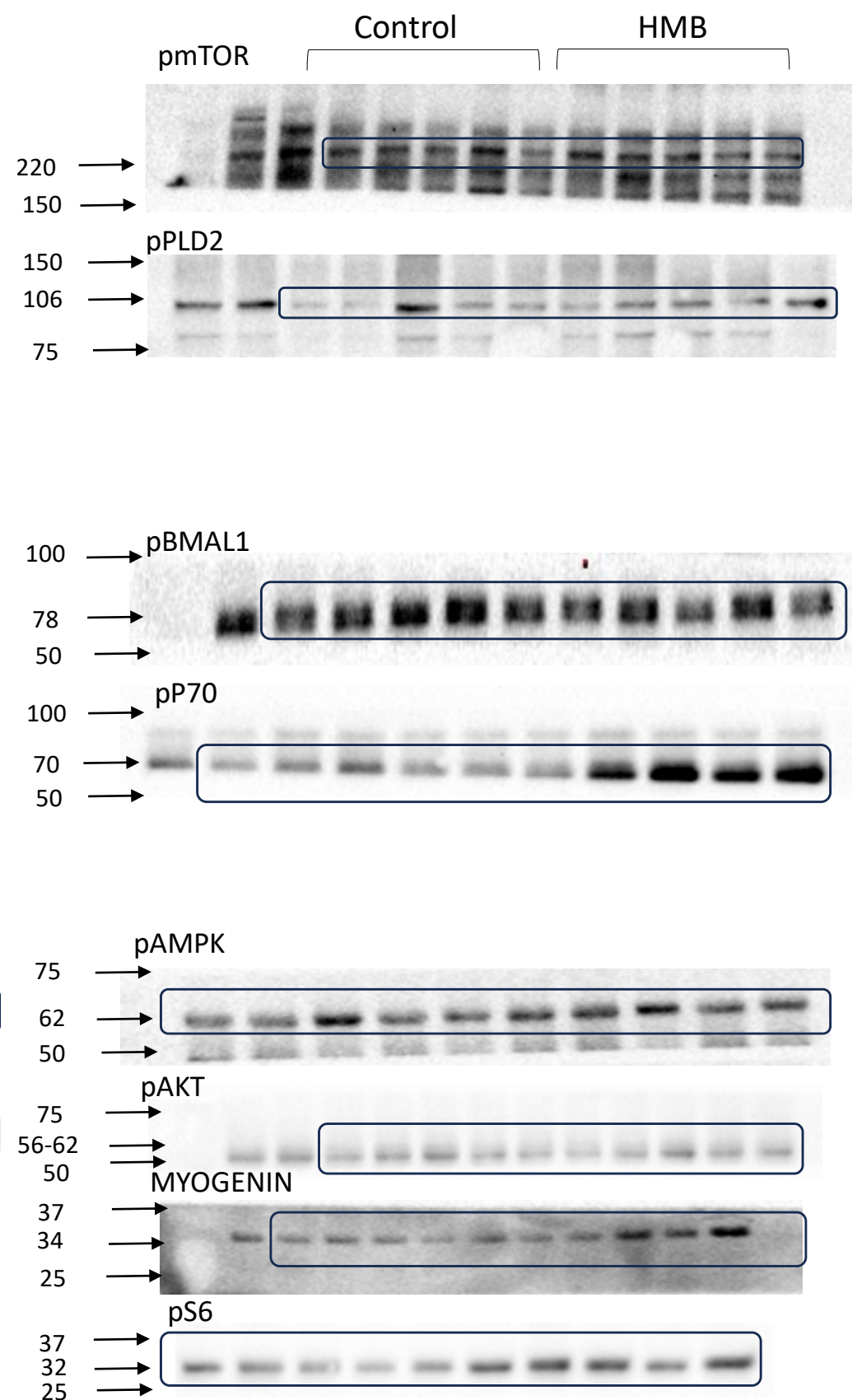
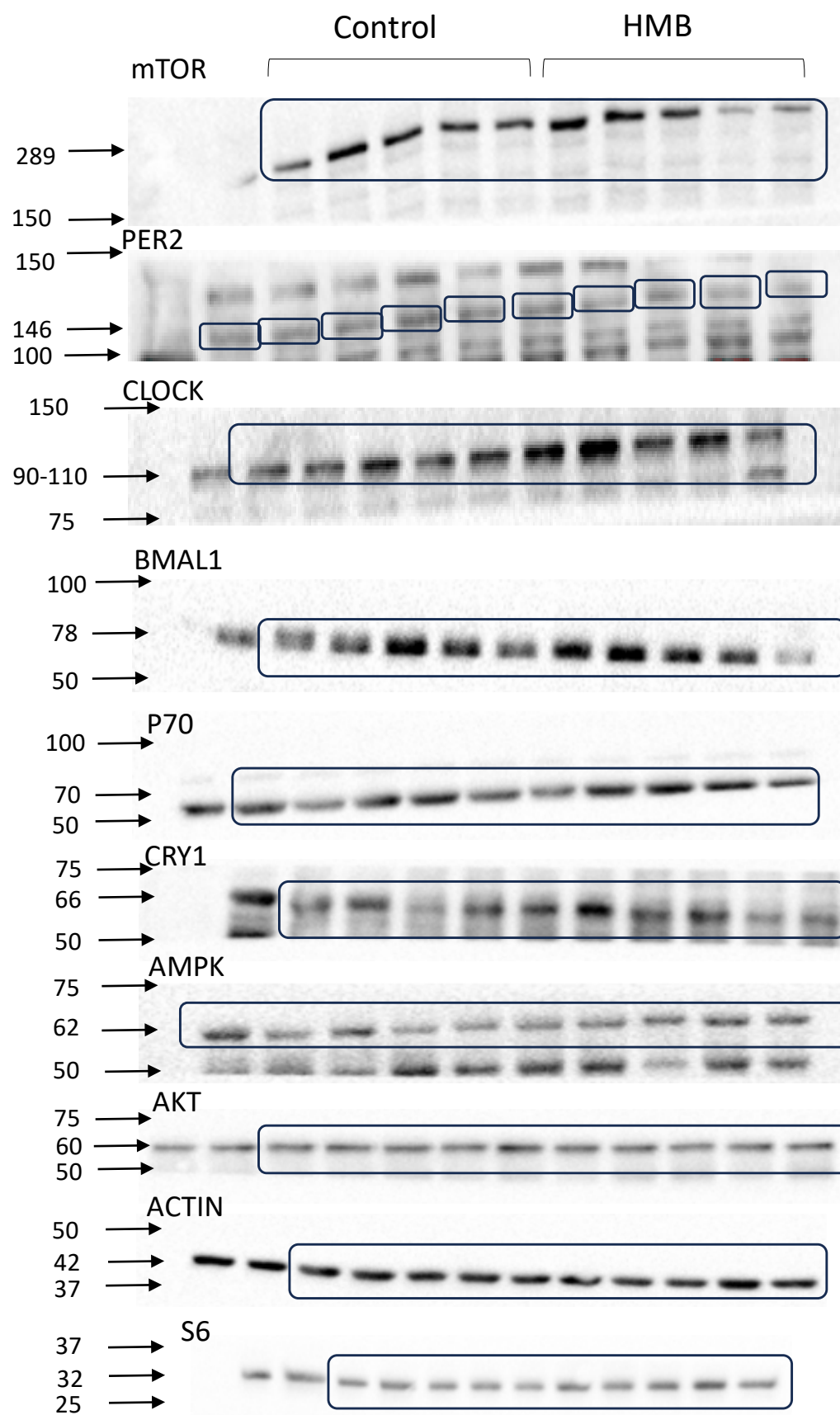
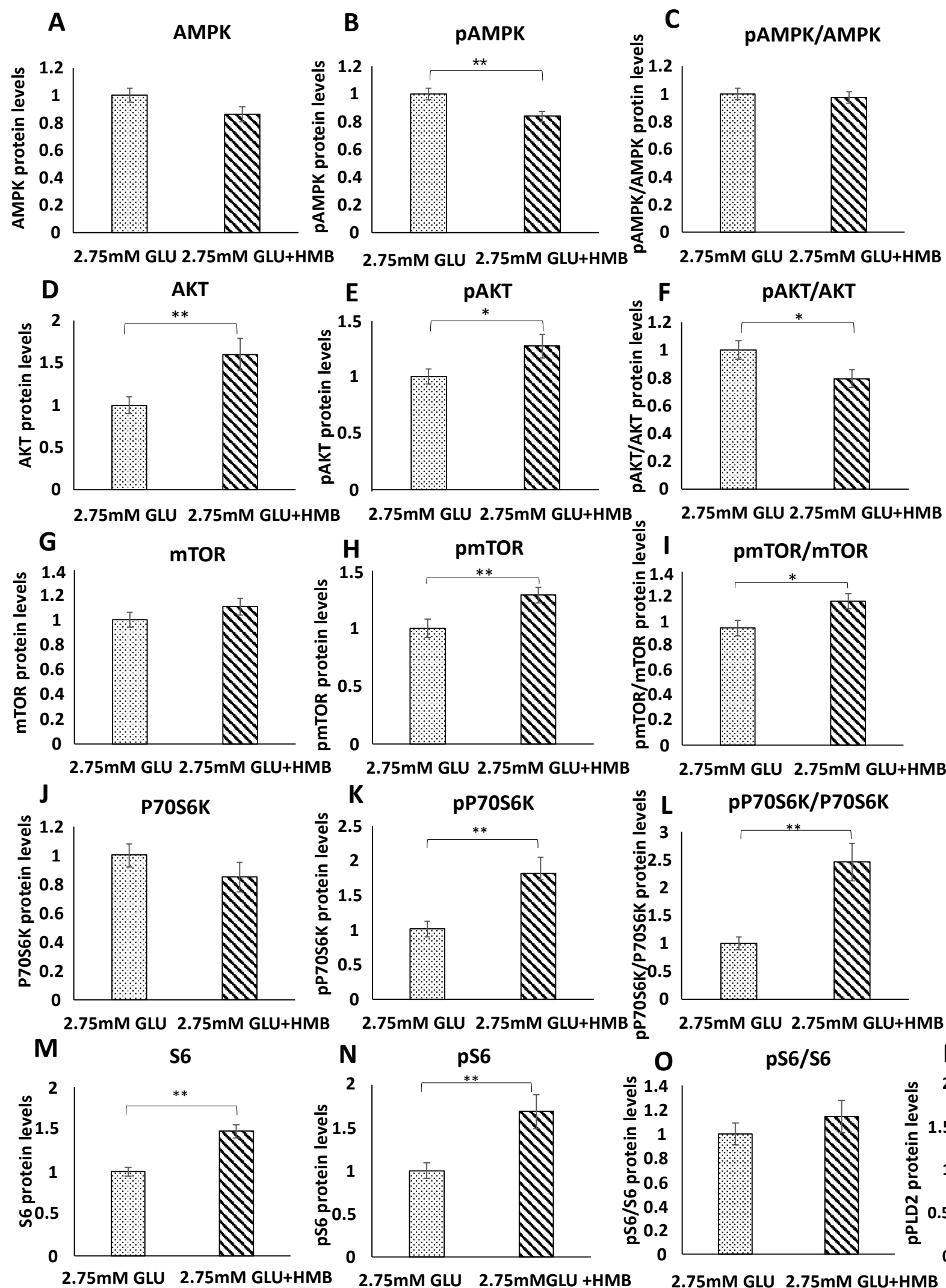




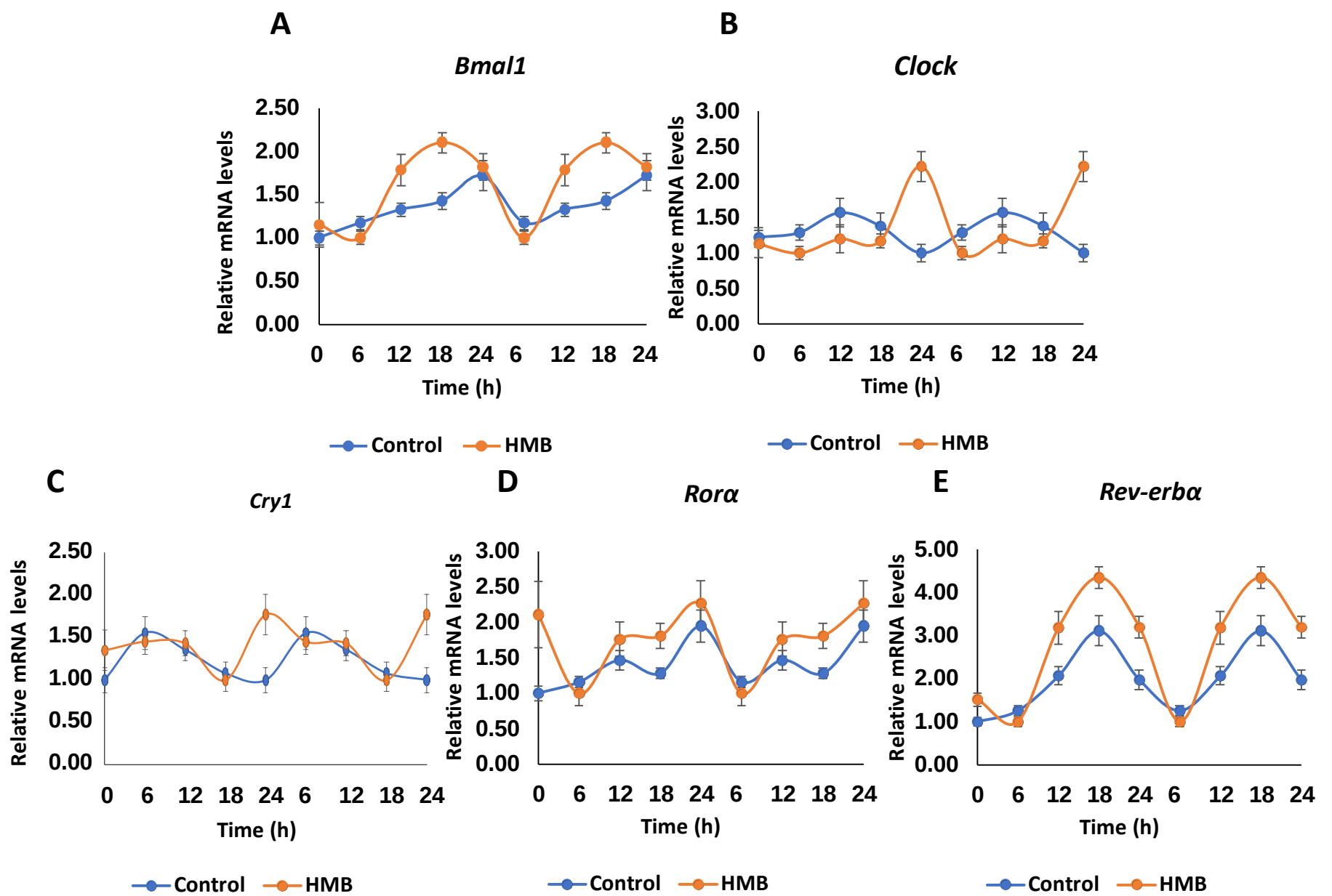
Supplementary Figure S1: Mechanism map of PLD2, mTOR and AMPK pathways.



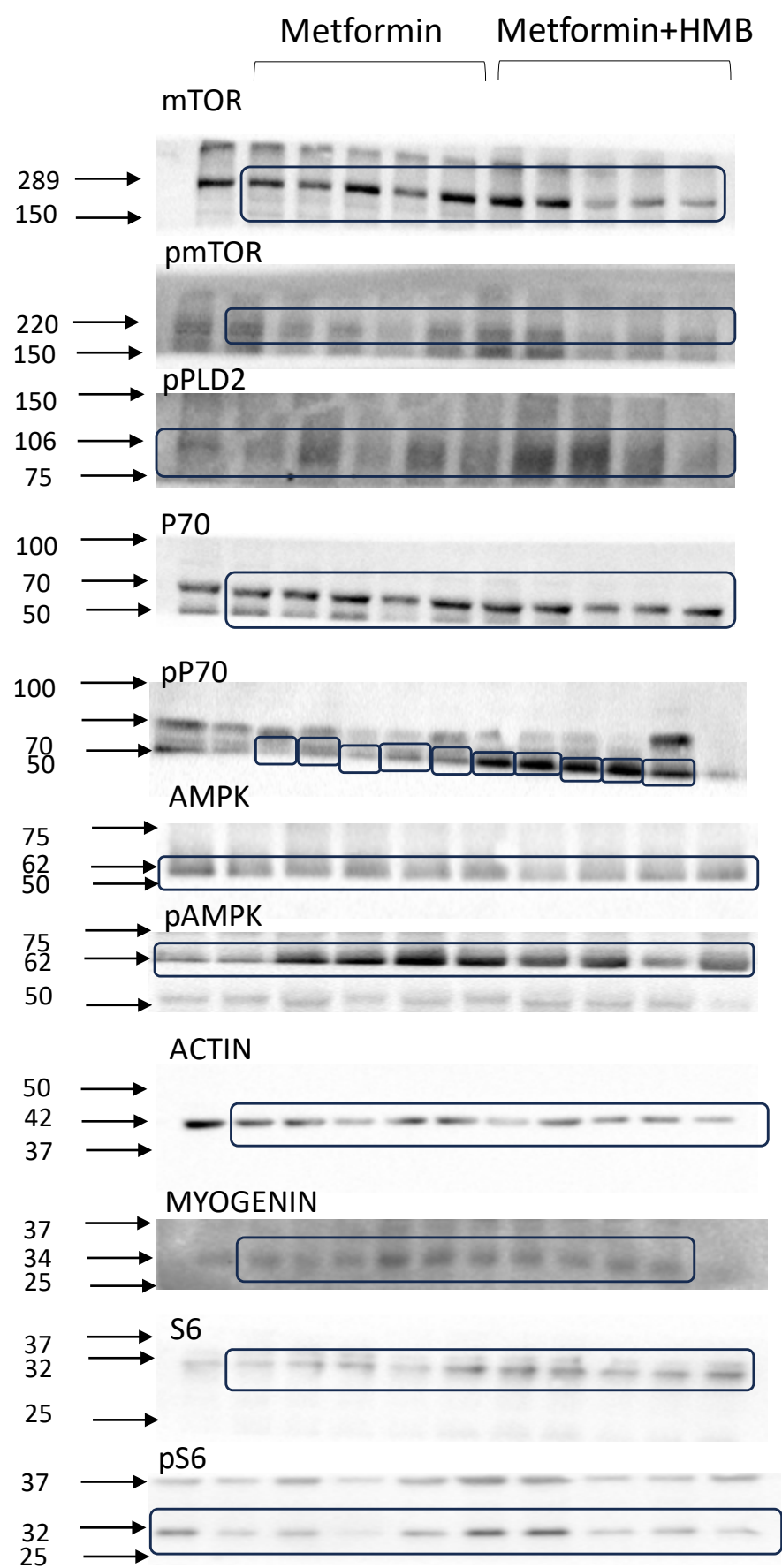
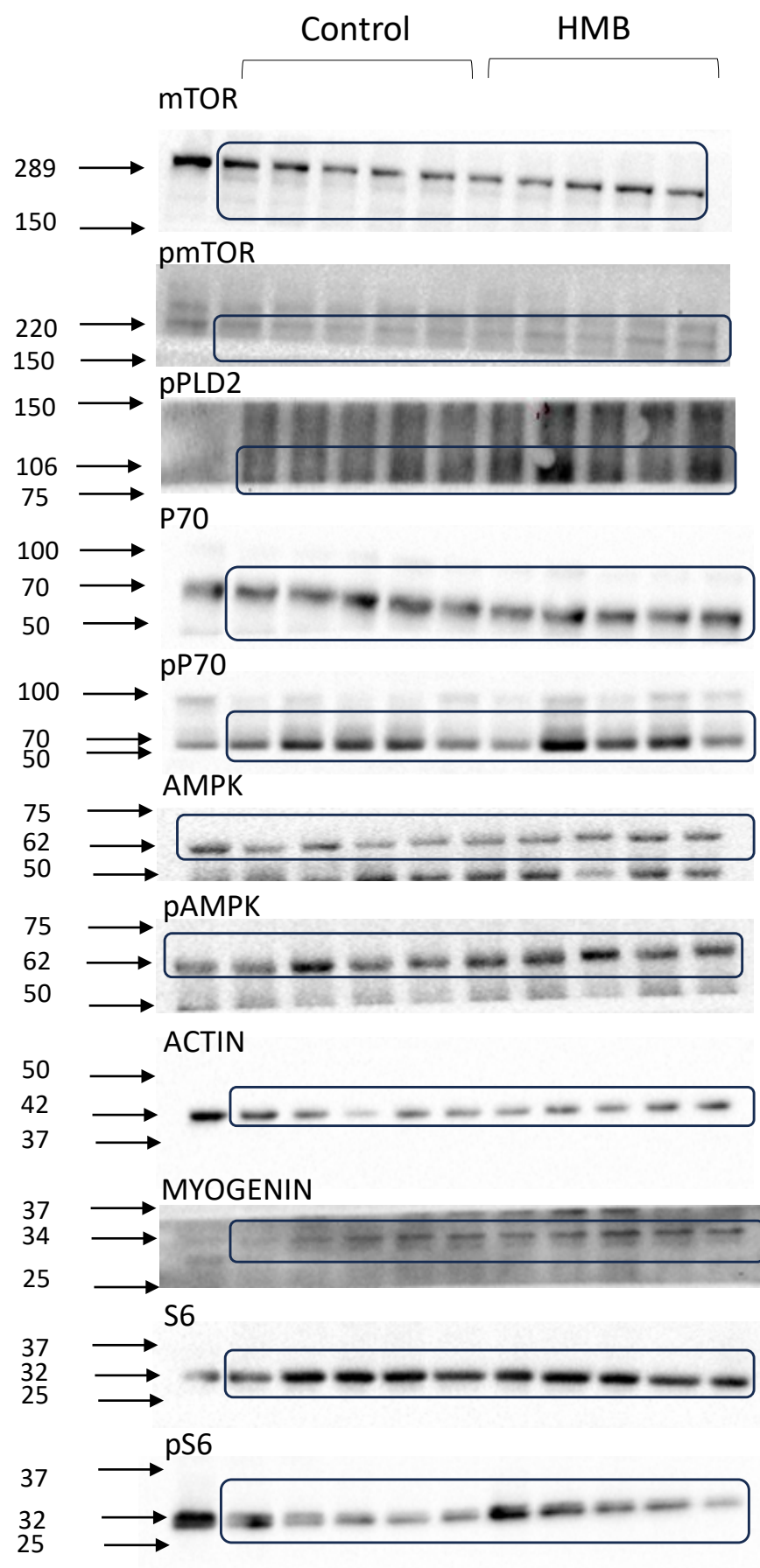
Supplementary Figure S2: Western blot analysis of circadian clock and muscle proteins.



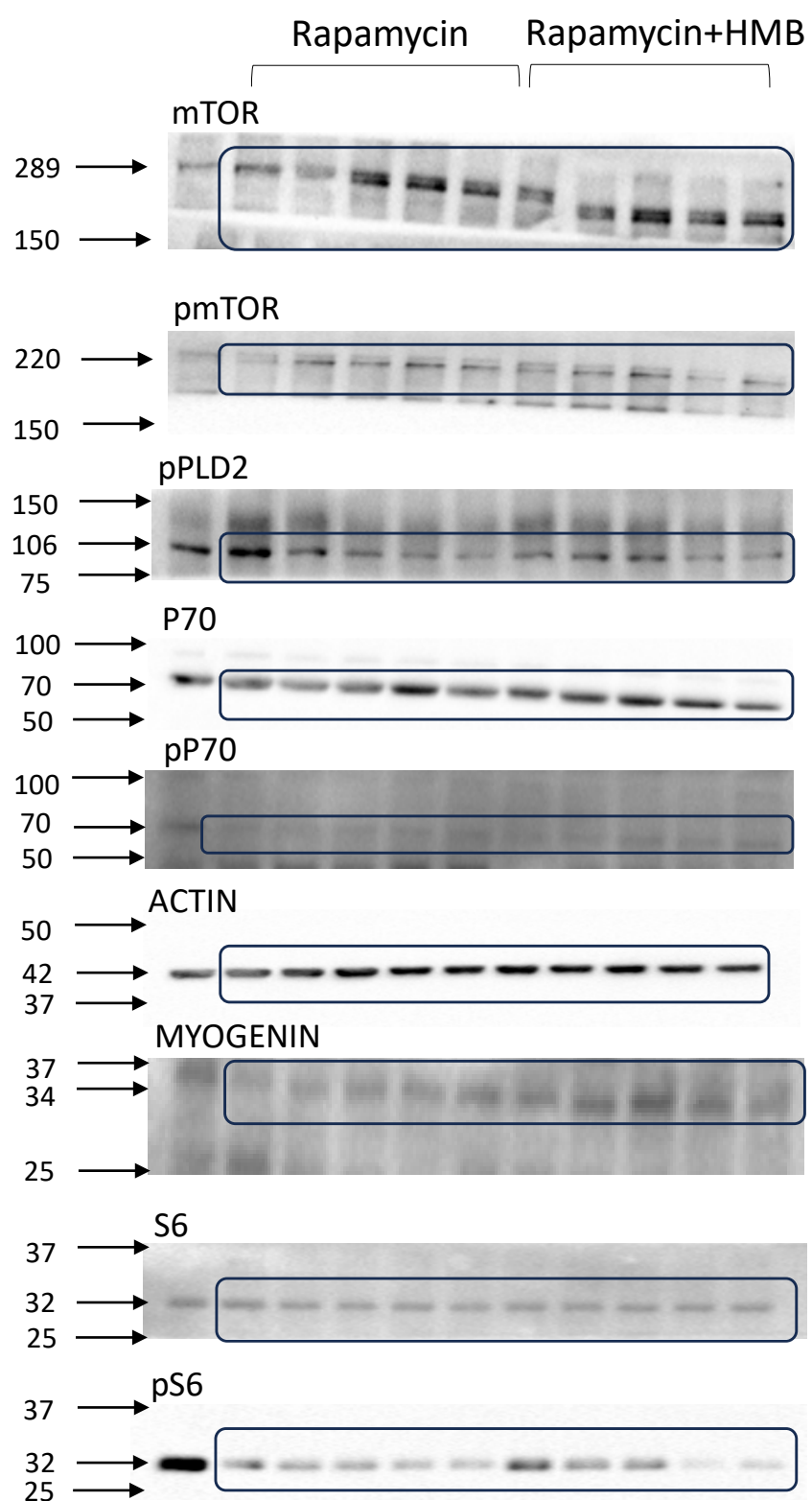
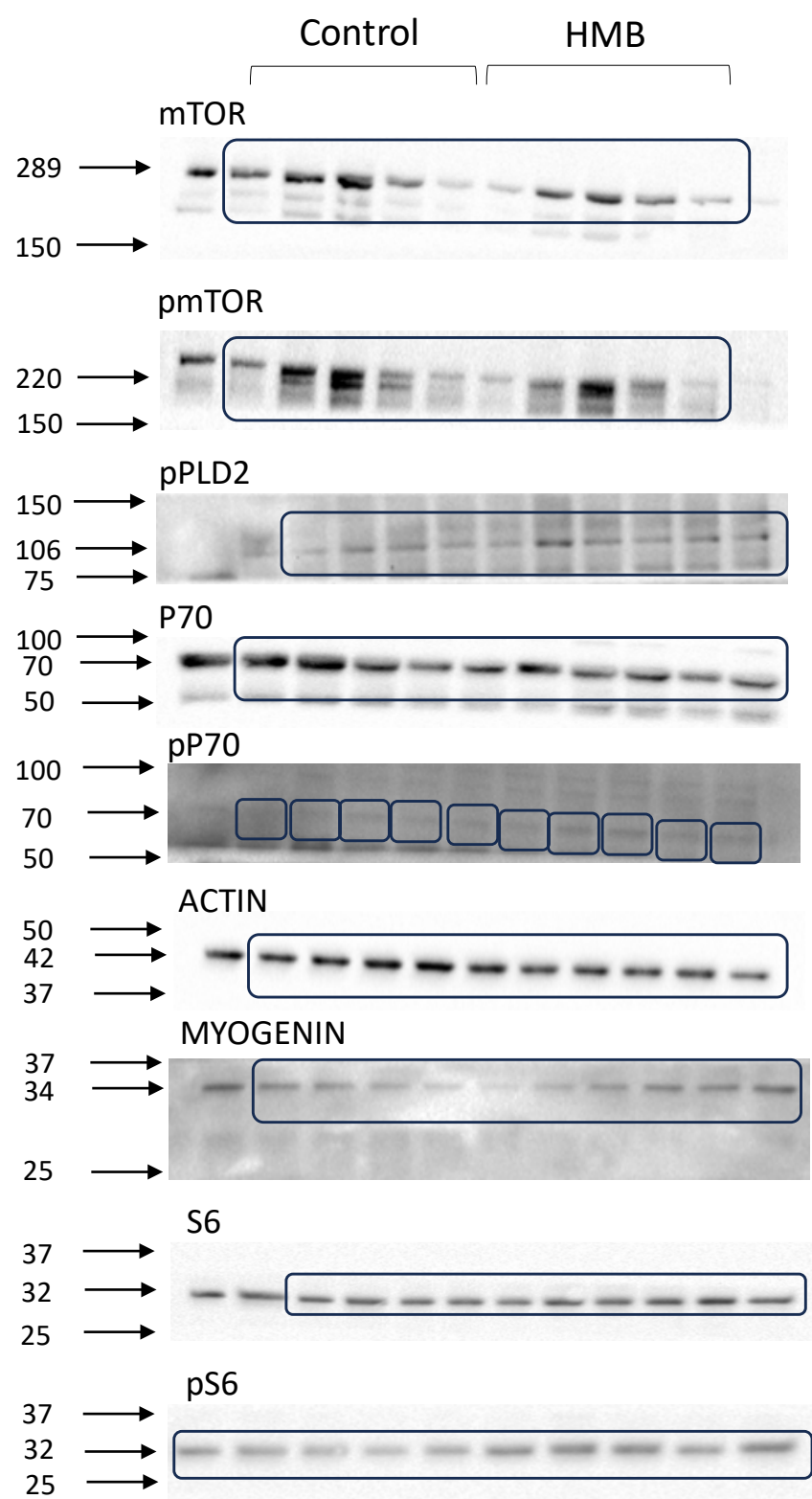
Supplementary Figure S3:
The effect of HMB on the daily mTOR signaling pathway in C2C12 treated with 2.75mM glucose.
A. Daily AMPK protein levels. **B.** Daily pAMPK protein levels. **C.** Daily pAMPK/AMPK ratio. **D.** Daily AKT protein levels. **E.** Daily pAKT protein levels. **F.** Daily pAKT/AKT ratio. **G.** Daily mTOR protein levels. **H.** Daily pmTOR protein levels. **I.** Daily pmTOR/mTOR ratio. **J.** Daily P70S6K protein levels. **K.** Daily pP70S6K protein levels. **L.** Daily pP70S6K/P70S6K ratio. **M.** Daily S6 protein levels. **N.** Daily pS6 protein levels. **O.** Daily pS6/S6 ratio. **P.** Daily pPLD2 protein levels. Data are presented as mean $\pm$ SEM. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.



Supplementary Figure S4: Oscillation of circadian genes in C2C12 myotubes. A. *Bmal1* mRNA oscillation. B. *Clock* mRNA oscillation. C. *Cry1* mRNA oscillation. D. *Rora* mRNA oscillation. E. *Rev-erba* mRNA oscillation.



Supplementary Figure S5: Western blot analysis of the mTOR pathway.



Supplementary Figure S6: Western blot analysis of the mTOR pathway.