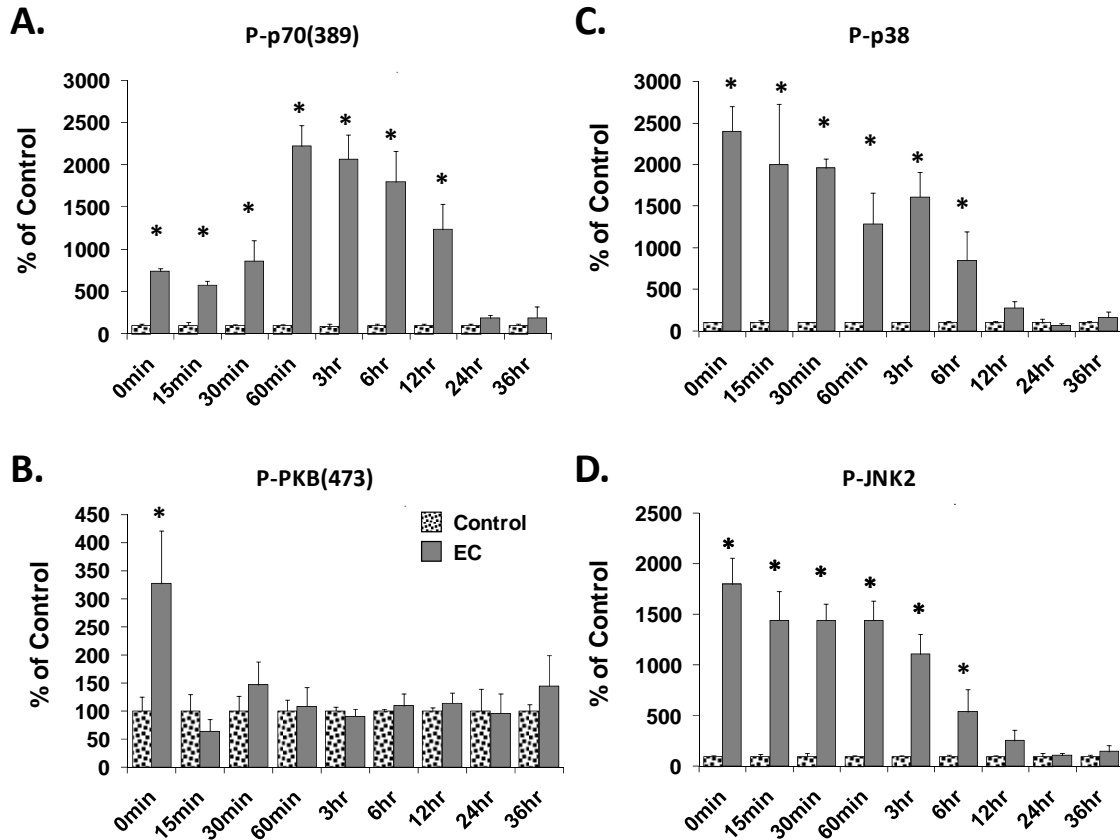
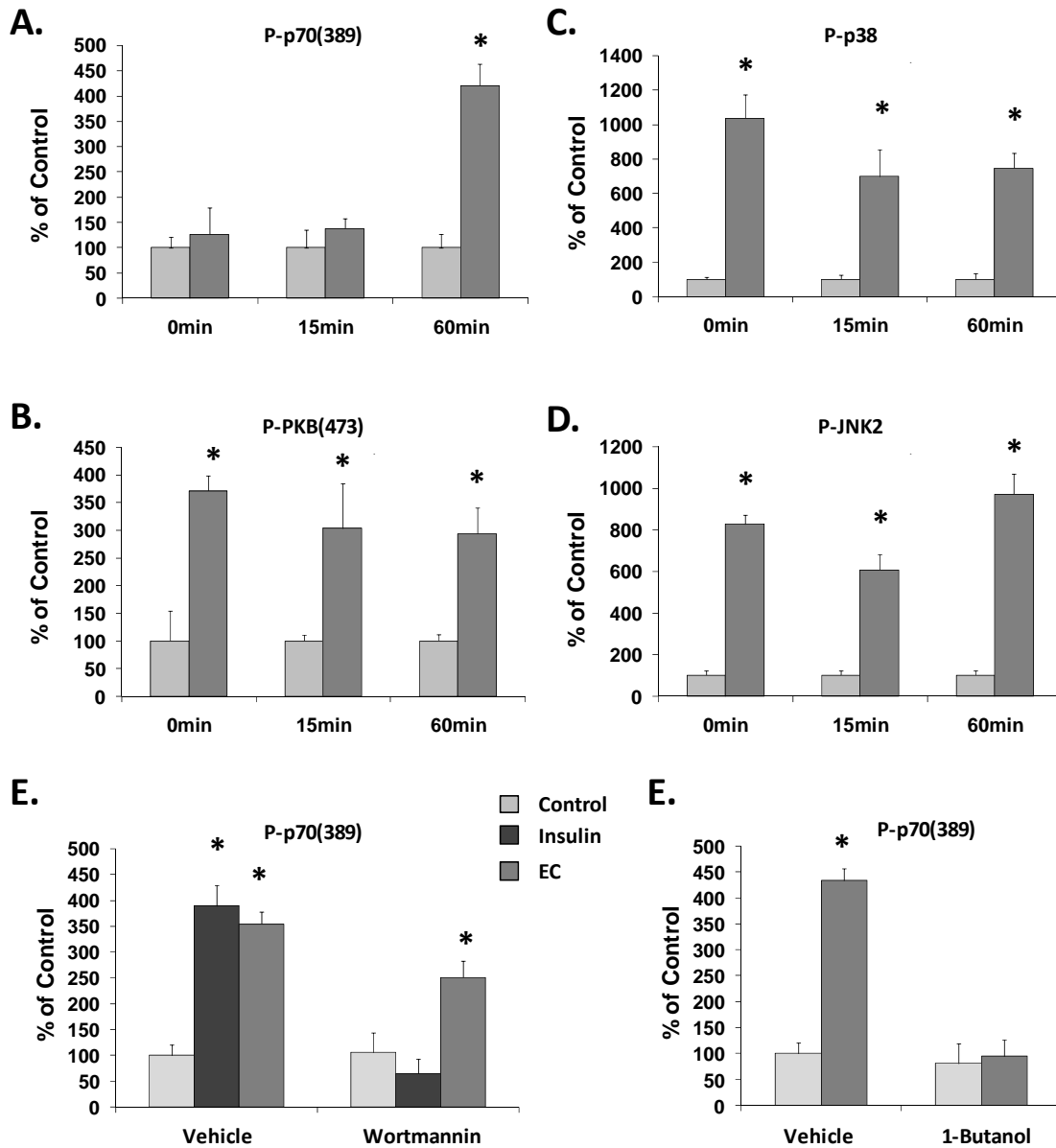


Supplemental Figure 1



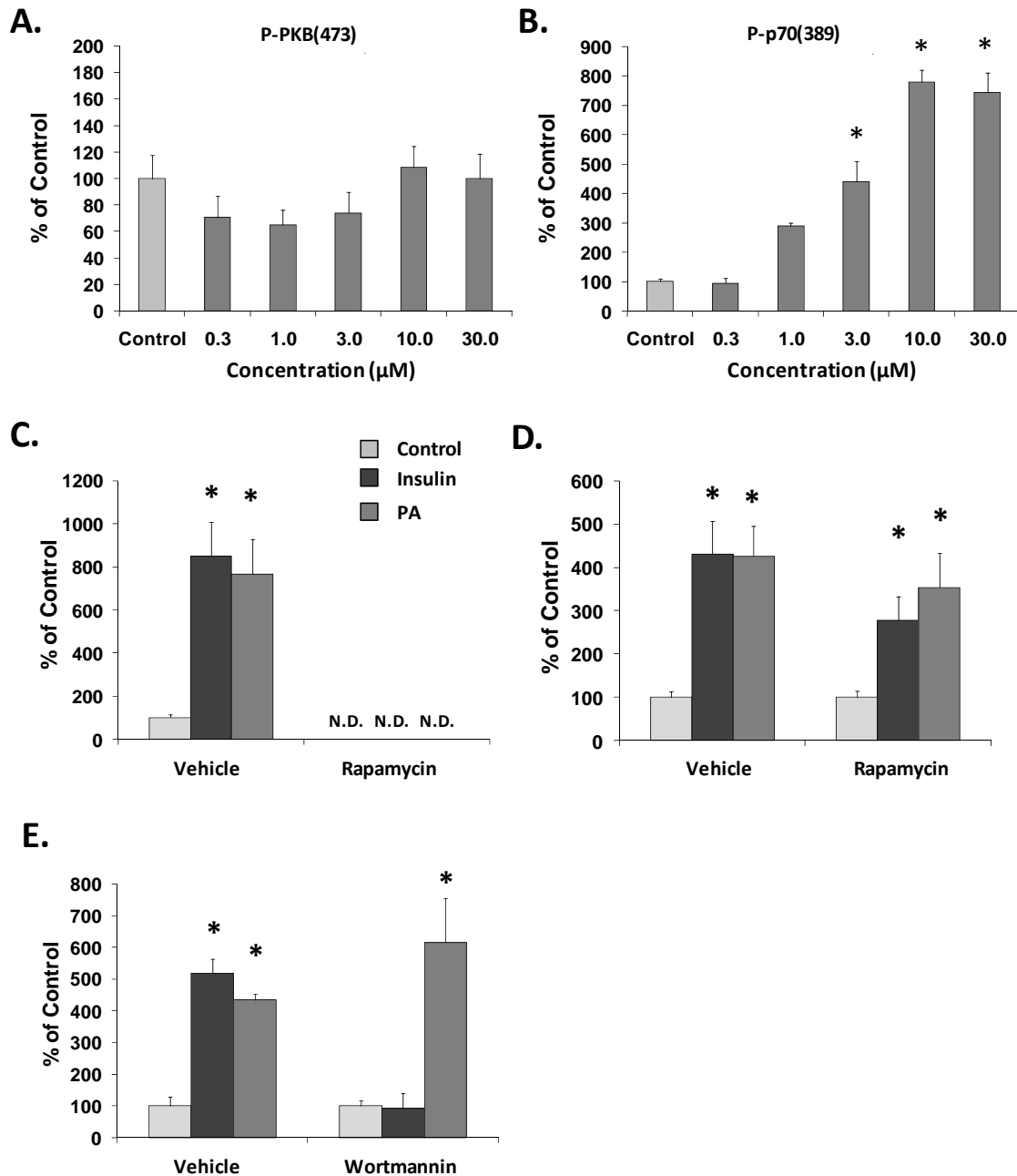
Supplemental Figure 1. Temporal Response of Signaling Through Various Protein Kinases Following Eccentric Contractions *In Vivo* (Quantitative Analysis for Figure 1). Images of the western blots from Figure 1 of the manuscript were quantified and the values for the EC samples were expressed as a percentage of the time-matched control samples. (A) P-p70(389), (B) P-PKB(473), (C) P-p38 and (D) P-JNK2. All values are presented as the mean + SEM (n = 4-7 per group). * Significantly different from control ($P \leq 0.05$).

Supplemental Figure 2



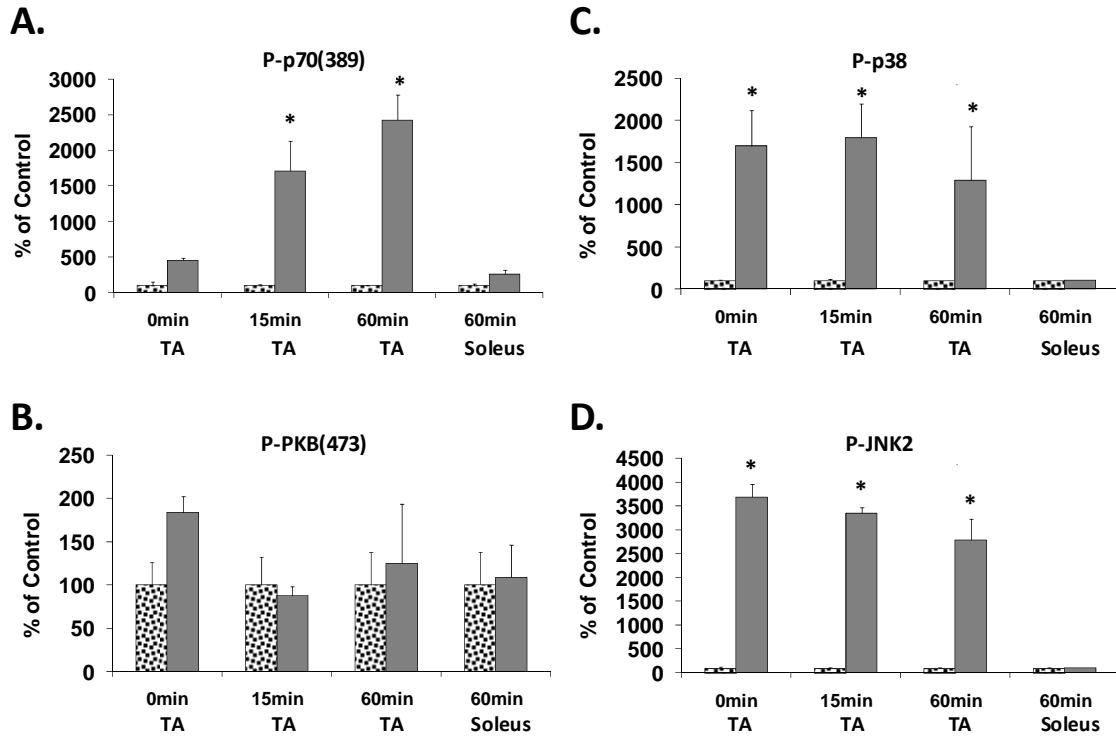
Supplemental Figure 2. The Role of PI3K and PLD/PA in the Activation of mTOR Signaling by Eccentric Contractions *Ex Vivo* (Quantitative Analysis for Figure 2). (A-D) Images of the western blots from Figure 2A of the manuscript were quantified and the values for the EC samples were expressed as a percentage of the time-matched control samples. (A) P-p70(389), (B) P-PKB(473), (C) P-p38 and (D) P-JNK2. (E and F) Images of western blots for P-p70(389) from Figure 2B (E) and Figure 2D (F) of the manuscript were quantified and the values were expressed as a percentage of the vehicle treated control samples. All values are presented as the mean + SEM for each group (n = 3-6 per group). * Significantly different from control (P ≤ 0.05).

Supplemental Figure 3



Supplemental Figure 3. Phosphatidic Acid Induces mTOR Signaling via a PI3K/PKB-Independent Mechanism (Quantitative Analysis for Figure 3). Images of the western blots for P-PKB(473) (A) and P-p70(389) (B) from Figure 3A of the manuscript were quantified and the values were expressed as a percentage of the control samples. Images of the western blots for P-p70(389) from Figure 3B (C), Figure 3C (D) and Figure 3D (E) were quantified and the values were expressed as a percentage of the treatment (i.e. vehicle, rapamycin or wortmannin) control samples. All values are presented as the mean + SEM for each group (n = 3-8 per group). * Significantly different from treatment control ($P \leq 0.05$). N.D. = not detected.

Supplemental Figure 4



Supplemental Figure 4. Elevations in Phosphatidic Acid and the Activation of mTOR Signaling Occur Specifically in Response to Contractions that Induce Growth *In Vivo* (Quantitative Analysis for Figure 4). Images of the western blots from Figure 4 of the manuscript were quantified and the values for the samples subjected to contractions were expressed as a percentage of the time-matched control samples. (A) P-p70(389), (B) P-PKB(473), (C) P-p38 and (D) P-JNK2. All values are expressed as the mean + SEM for each group expressed as a percentage of the time-matched control group. * Significantly different from control ($P \leq 0.05$), ($n = 3-5$ per group).