ATP-induced increase in intracellular calcium levels and subsequent activation of mTOR as regulators of skeletal muscle hypertrophy

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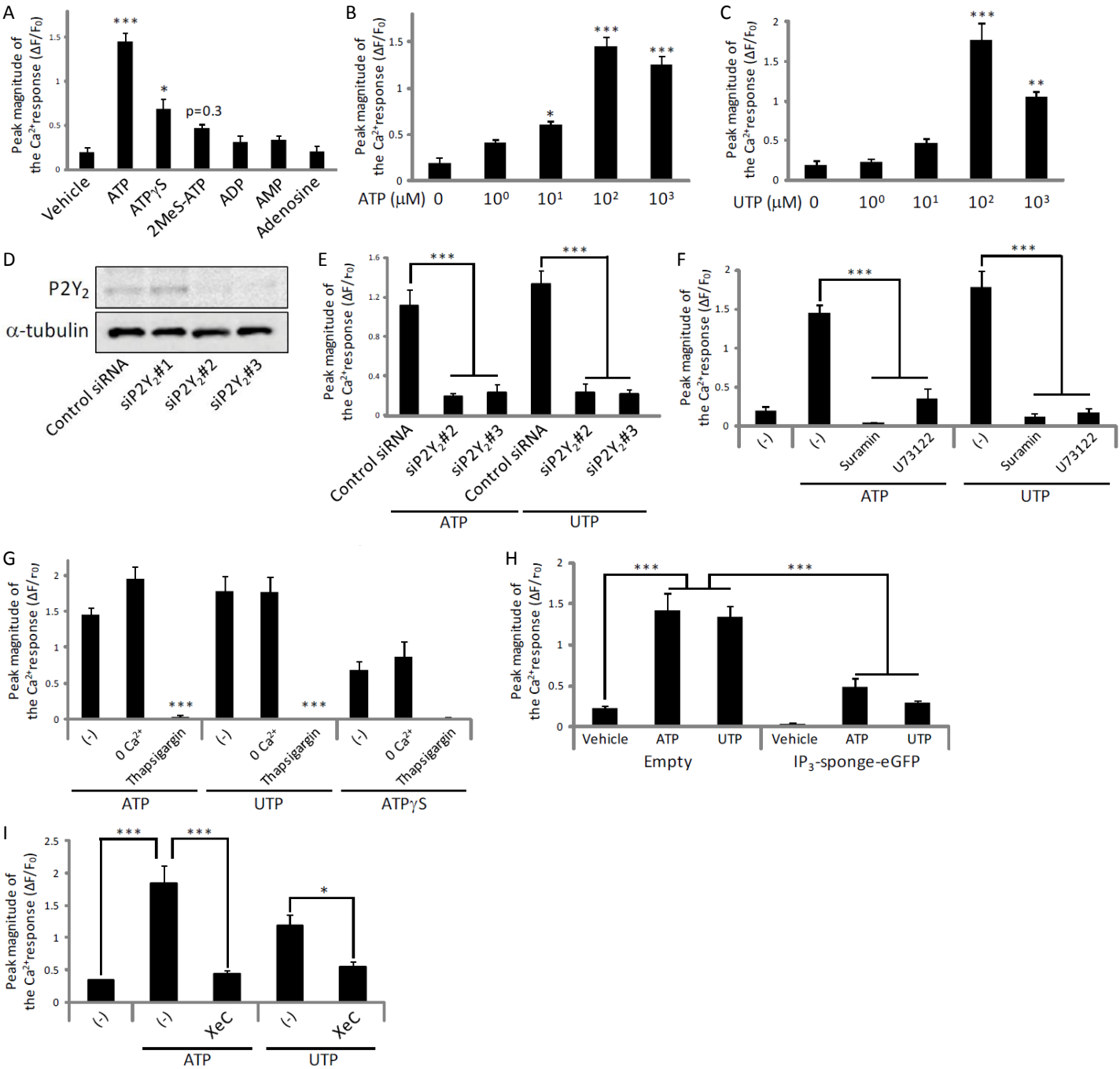

Supplementary figure 1. ATP induces increase in $[Ca^{2+}]_i$ by activation of the $P2Y_2$ receptor/PLC/IP_3R pathway in C2C12 myotubes related to Figure 2. (**A**) Quantitative analysis of the peak magnitudes of Fluo-4 intensity in ATP or ATP analog-treated C2C12 myotubes ($n = 4$). (**B** and **C**) Concentration-dependent effects of ATP (B) or UTP (C) on the peak magnitude of the Ca^{2+} response ($n = 4$). (**D**) Western blot analysis of the $P2Y_2$ receptor in siRNA-transfected C2C12 myotubes. (**E**) Quantitative analysis showing the effect of $P2Y_2$ gene knockdown on ATP- or UTP-induced increases in $[Ca^{2+}]_i$ ($n = 4$). (**F**) Quantitative analysis for the peak magnitudes of Fluo-4 intensity in suramin- or U73122-treated C2C12 myotubes with ATP or UTP (100 μM) ($n = 4$). (**G**) Quantitative analysis of the peak magnitudes of Fluo-4 intensity in thapsigargin-treated C2C12 myotubes, or C2C12 myotubes in 0 Ca^{2+} buffer with ATP, UTP or ATPγS (100 μM) ($n = 4$). (**H**) Quantitative analysis showing the effect of overexpression of an IP_3-sponge-eGFP on ATP- or UTP-induced increases of $[Ca^{2+}]_i$ ($n = 4$). (**I**) Quantitative analysis of the peak magnitudes of Fluo-4 intensity in XeC-treated C2C12 myotubes ($n = 4$). $^*P < 0.05$, $^{**}P < 0.01$, $^{***}P < 0.001$ by ANOVA with Tukey-Kramer test. Error bars indicate S.E.M.