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Supplemental Information

Metabolic Stress Drives Keratinocyte Defenses against *Staphylococcus aureus* Infection

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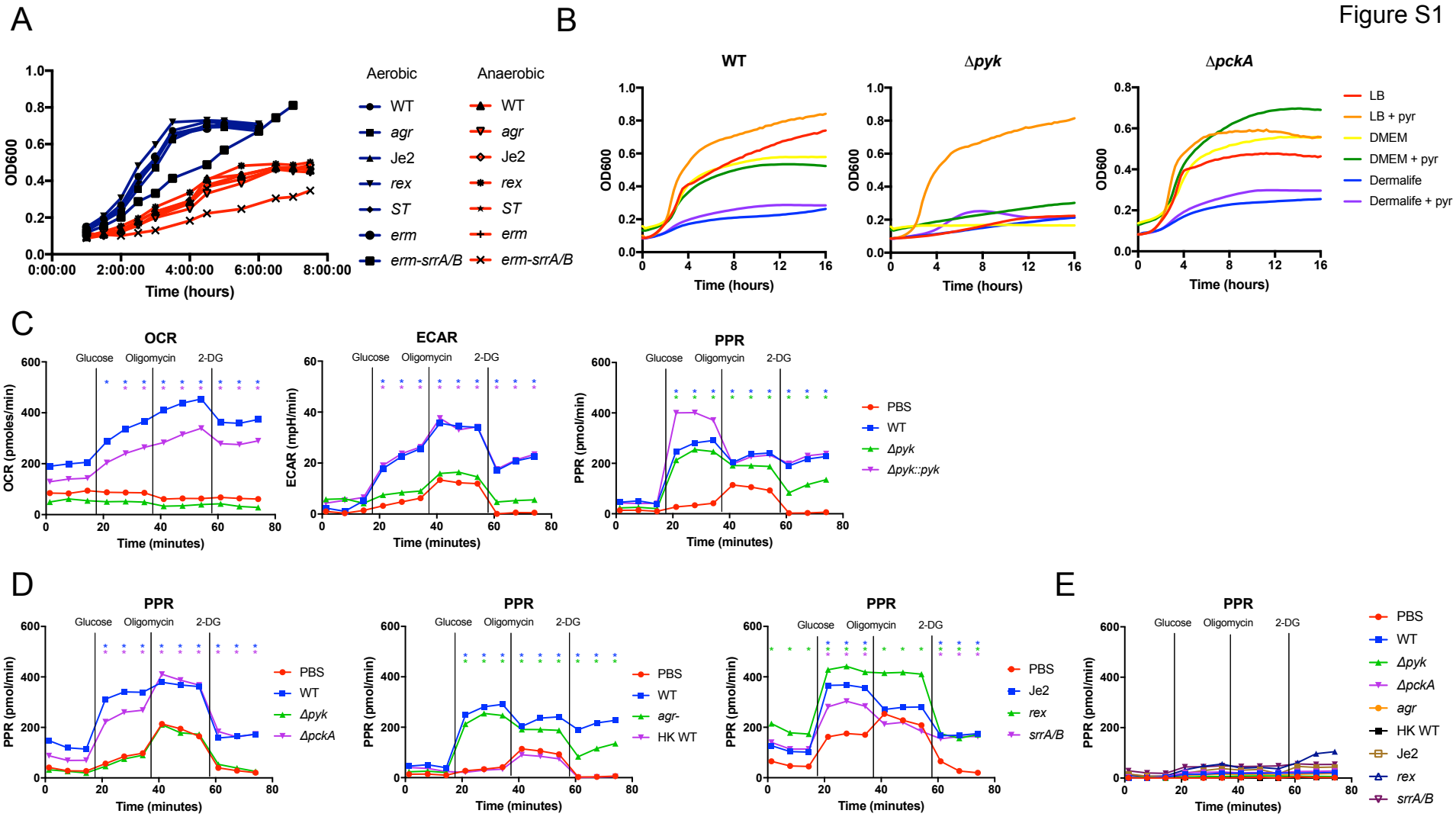

Figure S1. Related to Figure 1 – Comparative growth of *S. aureus* mutants – (A) Growth curves of various *S. aureus* strains under aerobic (blue) and anaerobic (red) conditions. (B) Growth curves of metabolic mutants of *S. aureus* in various media used in experiments presented. (C) A SeaHorse analyzer was used to monitor the metabolic activity via OCR, ECAR and PPR (proton production rate) of uninfected primary keratinocytes (HEKn) or those exposed to WT, *Δpyk*, and a complemented *Δpyk* strain (*Δpyk*::*Δpyk*) for 3 hours (MOI 20:1) prior to analysis. (D) PPR measurements were taken using a SeaHorse analyzer of uninfected primary keratinocytes (HEKn) or those exposed to various *S. aureus* strains or to heat-killed organisms for 3 hours (MOI 20:1). (E) Proton production rate of bacteria in the absence of keratinocytes was included for comparison. The addition of glucose, oligomycin and 2-DG are indicated as vertical lines. Representative experiments are shown. *$P < 0.05$ by one-way ANOVA. SeaHorse statistical significances are compared to PBS alone.

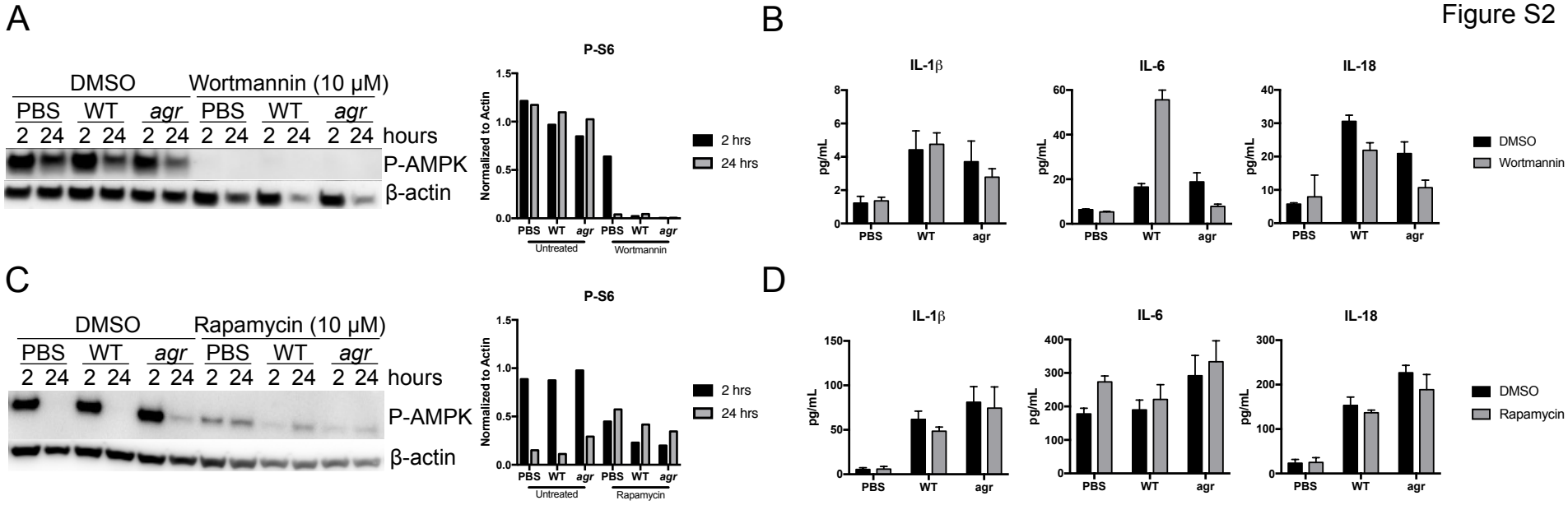

Figure S2. Related to Figure 3 – Effects of PI3K and mTOR inhibition on proliferation and cytokine production – (A, B) Immunoblots of phospho-AMPK and cytokines measured by ELISA of HaCaTs exposed to PBS or *S. aureus* for 2 or 24 hours in the presence of wortmannin. Densitometry normalized to actin included for comparison. (C, D) Immunoblots and cytokines measured by ELISA of HEKn cells exposed to PBS or *S. aureus* for 2 or 24 hours in the presence of rapamycin. Densitometry normalized to actin included for comparison. Representative experiments are shown. For all graphs, each data point is the mean value ± SEM (n = 3).