

Butyrate prevents TGF- β 1–induced alveolar myofibroblast differentiation and modulates energy metabolism

Hyo Yeong Lee ^{1,^}, Somi Nam ^{2,^}, Mi-Jeong Kim ^{2,^}, Su Jung Kim ¹, Sung Hoon Back ^{2,*}, and Hyun Ju Yoo ^{1,*}

¹ Department of Convergence Medicine, Asan Institute for Life Sciences, Asan Medical Center, University of Ulsan College of Medicine, Seoul 05505, Republic of Korea

² School of Biological Sciences, University of Ulsan, Ulsan 44610, Republic of Korea

[^] These authors contributed equally to this work.

Supplementary Figures

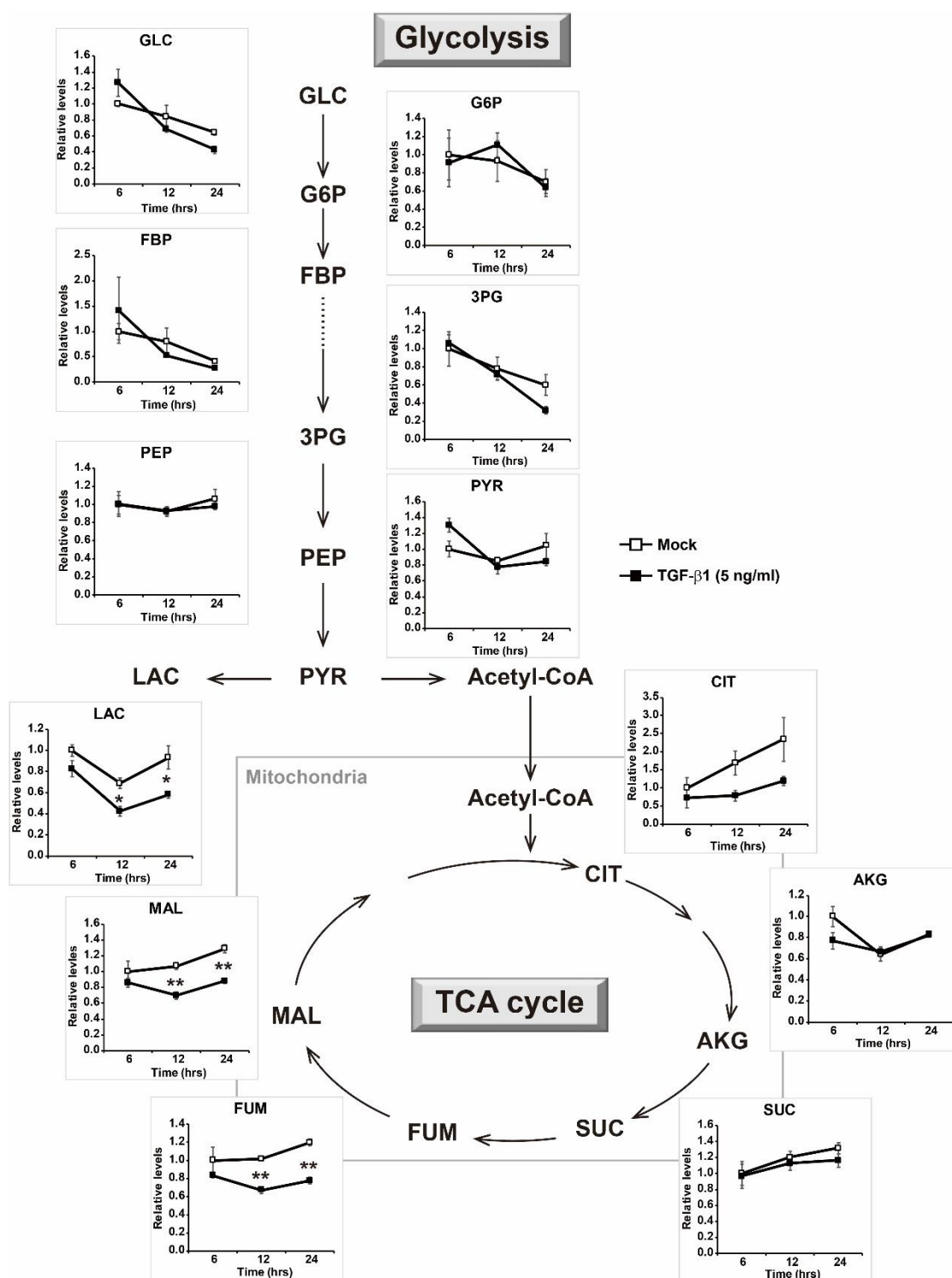


Figure S1. Effect of TGF-β1 on changes in metabolites involved in energy metabolism in pulmonary fibroblasts. Cells were treated with PBS (Mock) or 5 ng/ml TGF-β1 for 24 hrs. The data are expressed as means ± SEM of three independent experiments, *P<0.05 and **P<0.01; Mock-treated cells vs. TGF-β1-treated cells.

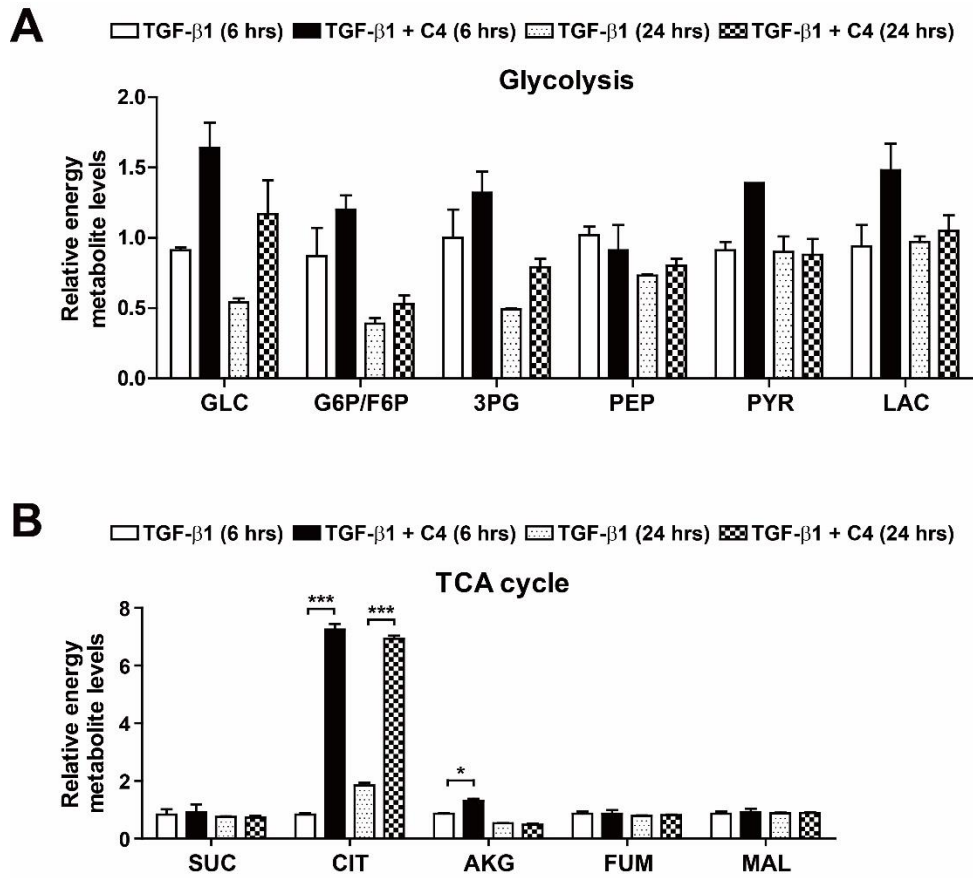


Figure S2. Effect of butyrate on changes in metabolites involved in energy metabolism in TGF- β 1-treated pulmonary fibroblasts. MRC5 cells were treated with TGF- β 1 (5 ng/ml) for the indicated times with or without C4 (5 mM). Data are expressed as means \pm SEM of three independent experiments, * P <0.05 and *** P <0.001; TGF- β 1-treated cells vs. TGF- β 1 + C4-treated cells.

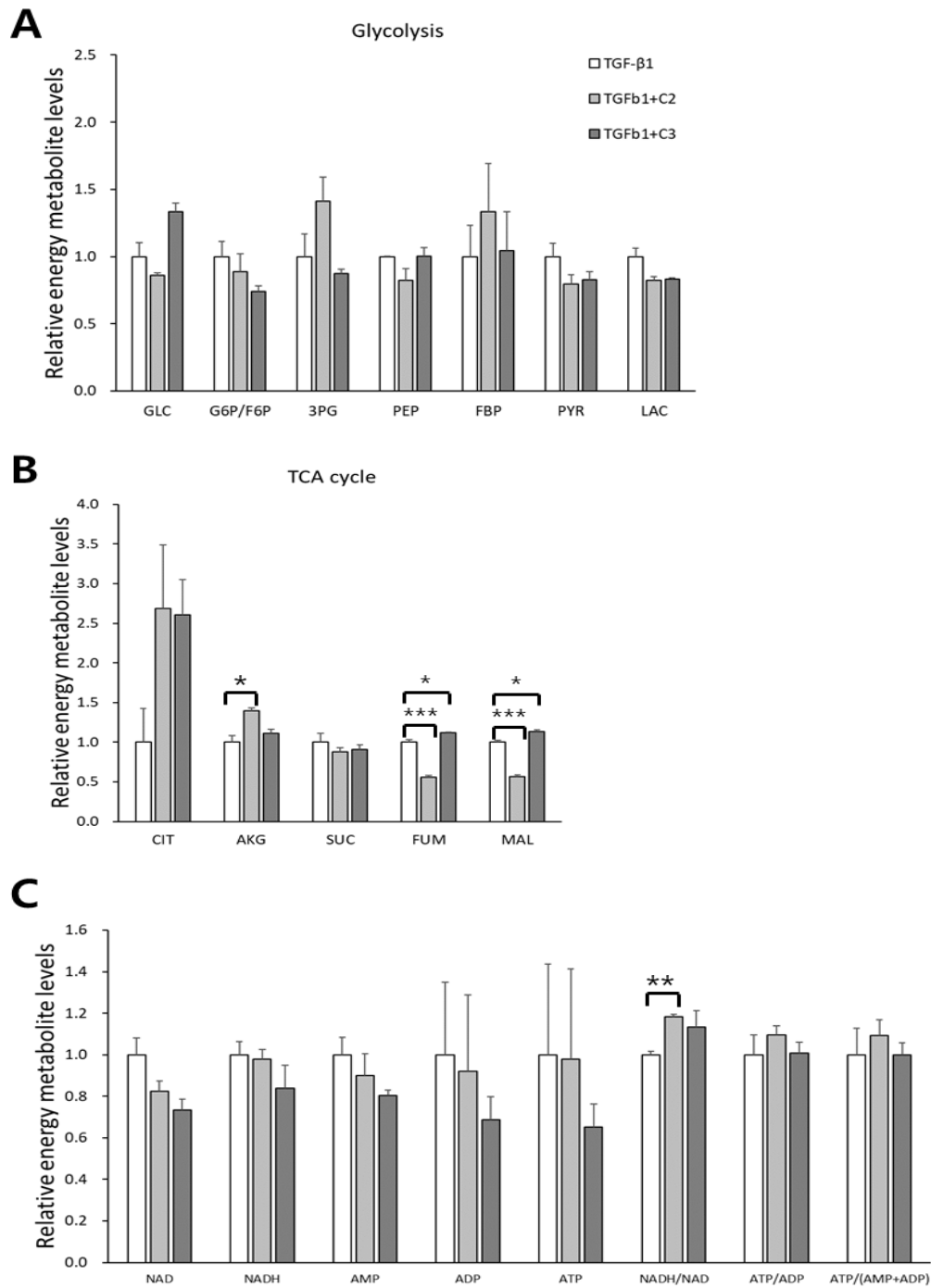


Figure S3. Effect of acetate and propionate on changes in metabolites involved in energy metabolism in TGF- β 1-treated pulmonary fibroblasts. MRC5 cells were treated with TGF- β 1 (5 ng/ml) for 24 hrs with or without C2 (5 mM) or C3 (5mM). Data are expressed as means \pm SEM of three independent experiments, * P <0.05, ** P <0.01 and *** P <0.01; TGF- β 1-treated cells vs. TGF- β 1 + C2 (or C3)-treated cells.