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Supplemental Information

**Phenformin, But Not Metformin, Delays Development
of T Cell Acute Lymphoblastic Leukemia/Lymphoma
via Cell-Autonomous AMPK Activation**

Diana Vara-Ciruelos, Madhumita Dandapani, Fiona M. Russell, Katarzyna M. Grzes, Abdelmadjid Atrih, Marc Foretz, Benoit Viollet, Douglas J. Lamont, Doreen A. Cantrell, and D. Grahame Hardie

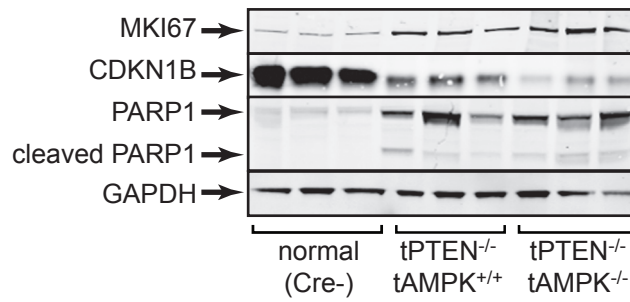


Figure S1: Markers of proliferation/apoptosis in normal thymus or lymphomas of different genotypes (n = 3). Quantification of blots from a larger number of samples is shown in Fig. 1E.

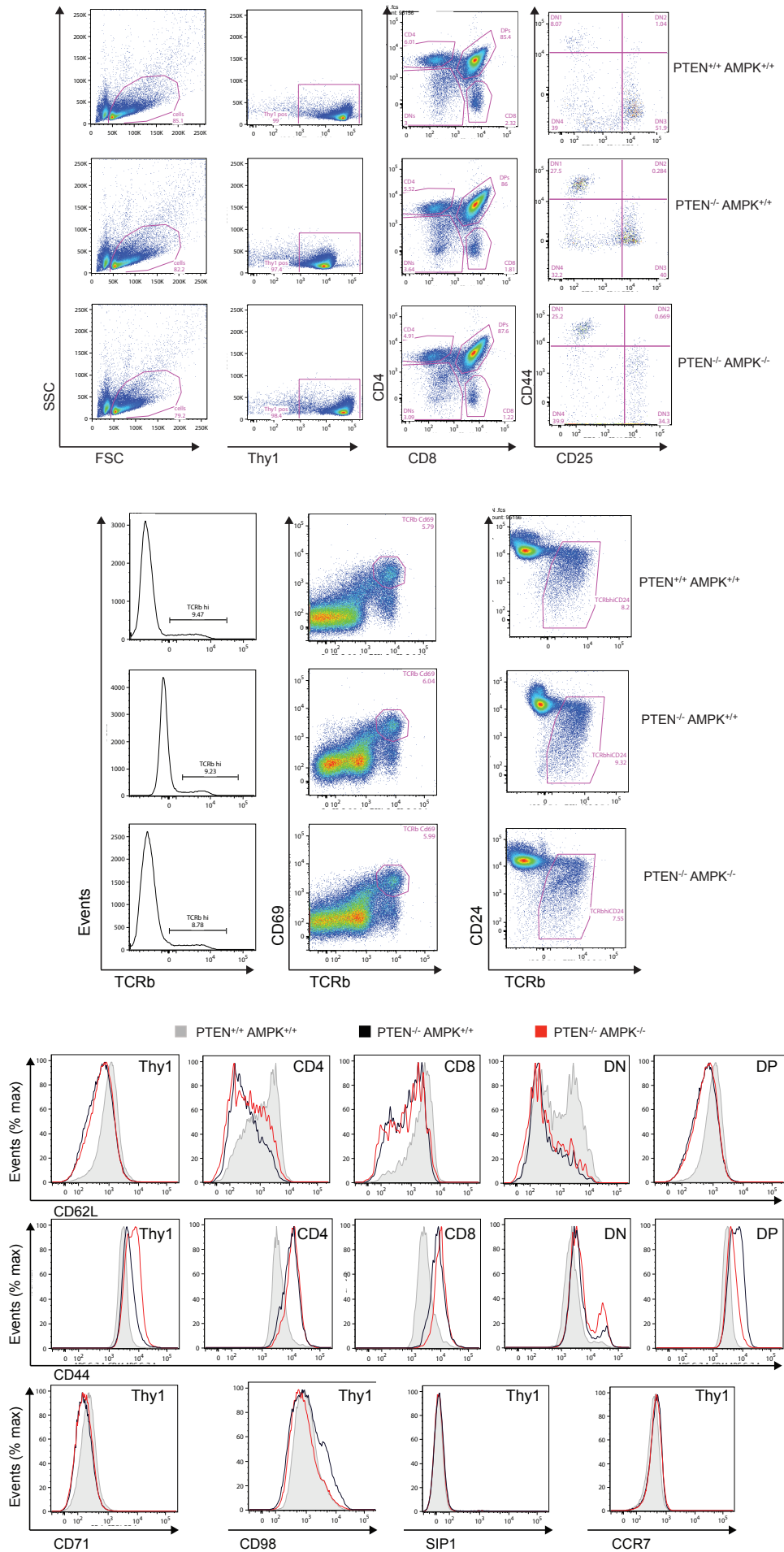
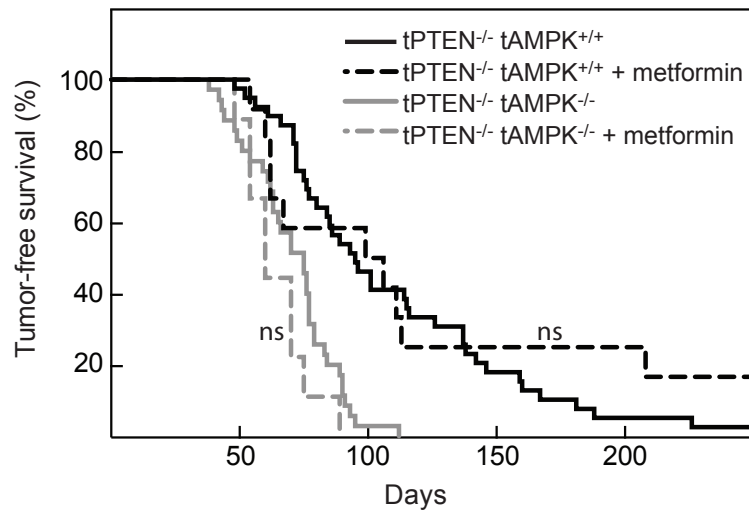
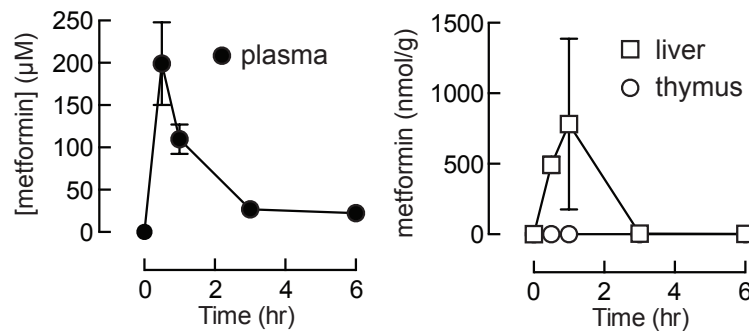


Figure S2: Expression of T cell markers is very similar in thymocytes from PTEN knockouts and PTEN/AMPK double knockouts

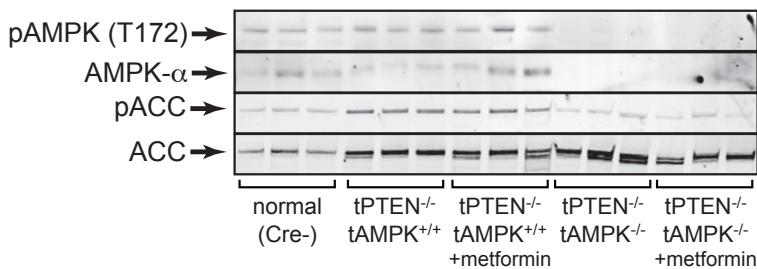
A) Tumor-free survival with or without metformin treatment



B) Detection of metformin in plasma and tissues after oral gavage



C) AMPK signalling in thymus ± metformin treatment



D) AMPK signalling ± metformin treatment (quantification)

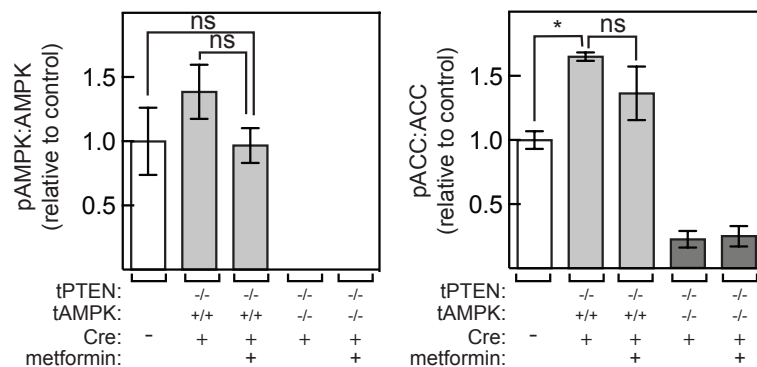


Figure S3: Effect of metformin treatment in vivo on tumor-free survival and cell signalling in thymus.

(A) Effect of administration of metformin in drinking water (400 mg/kg) on tumor-free survival in tPTEN^{-/-} tAMPK^{+/+} or tPTEN^{-/-} tAMPK^{-/-} mice. The data for untreated controls are as in Fig. 1A. The effects of metformin treatment were not significant (Log-rank, Mantel Cox) in either genotype. (B) Effect of time after oral gavage with metformin on its recovery (estimated by LC:MS) in plasma (left) and liver and thymus (right) in wild type mice (29-42 days of age). Results are mean ± SEM (n = 3). (C) Expression and phosphorylation of AMPK and ACC in thymus or thymic lymphomas of mice treated with and without metformin (three representative mice for each genotype or treatment). (D) Quantification of Western blotting data for all mice analyzed; results are mean ± SEM (n = 3). Results significantly different by 1-way ANOVA are indicated by asterisks; ns, not significant.