Supplementary Figure legends

Supplementary Fig. 1. RNA-seq profiles of lipogenesis genes from *Eμ-tTA/Tet-O-MYC* model T-ALL.

A) Data mining experiments of MYC on vs off state in the *Eμ-tTA/Tet-O-MYC* primary model of T-ALL, inclusive of the FVB/N background shows MYC-dependent regulation of lipogenesis genes *in vivo.* GSE106078. Statistical analysis by ordinary 1-way ANOVA. *P⩽0.1; **P⩽0.01; **P⩽0.001; ***P⩽0.001; ****P⩽0.0001

Supplementary Fig. 2. Direct MYC biding at lipogenesis genes.

A) ChIP-seq data shows direct MYC binding at promoters of the lipogenesis pathway upon increased MYC expression in Burkitt's like P493-6 cells (GSE 36354). B) ChIP-seq data in a conditional MYC expressing osteosarcoma cell line indicates that MYC-dependent regulation of lipogenesis is tissue dependent. (GSE 44672)

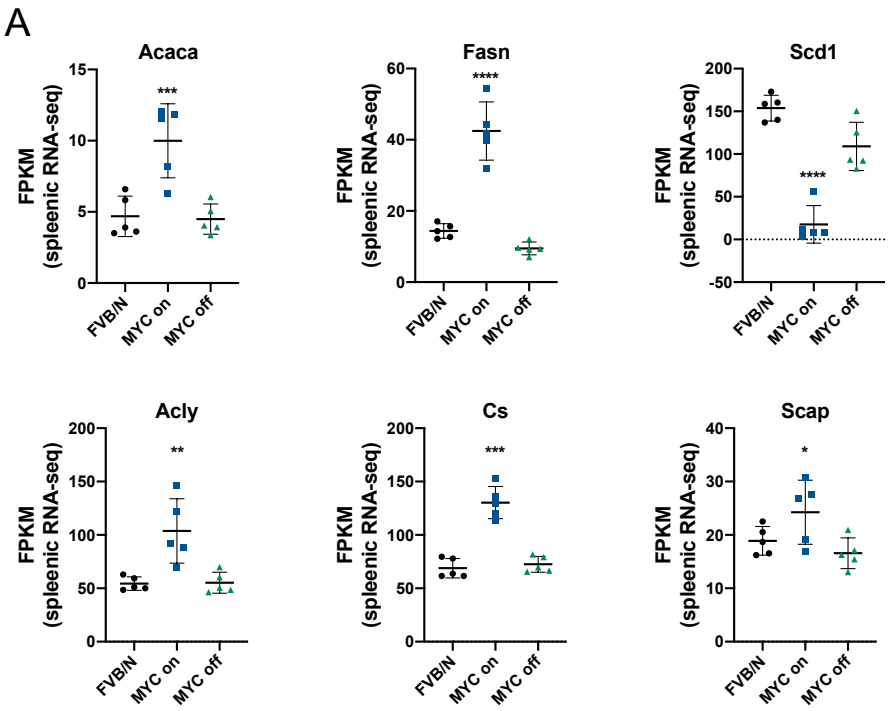
Supplementary Fig. 3. Unfolded protein response stress.

UPR stress response genes were monitored for changes in expression levels in response to lipogenesis blockade in MY, BCR-ABL, and RAS-dependent cell lines. Cells were treated with TOFA for 24hrs and expression levels of the indicated lipogenesis genes were monitored. Although UPR stress responses were modulated in each cell line, the expression levels do not appear to be related to the observed increase in lipogenesis. B) Cell lines derived from *Eμ-tTA/Tet-O-MYC* model were injected intravenously into NOD-SCIDIL-2Rg$^{-/-}$ and tracked for engraftment. Splenic tissue was collected from moribund treated with either vehicle or TOFA as indicated, and mRNA levels were monitored. Comparisons to vehicle control utilized unpaired T test **P⩽0.01; **P⩽0.001; ***P⩽0.001; ****P⩽0.0001

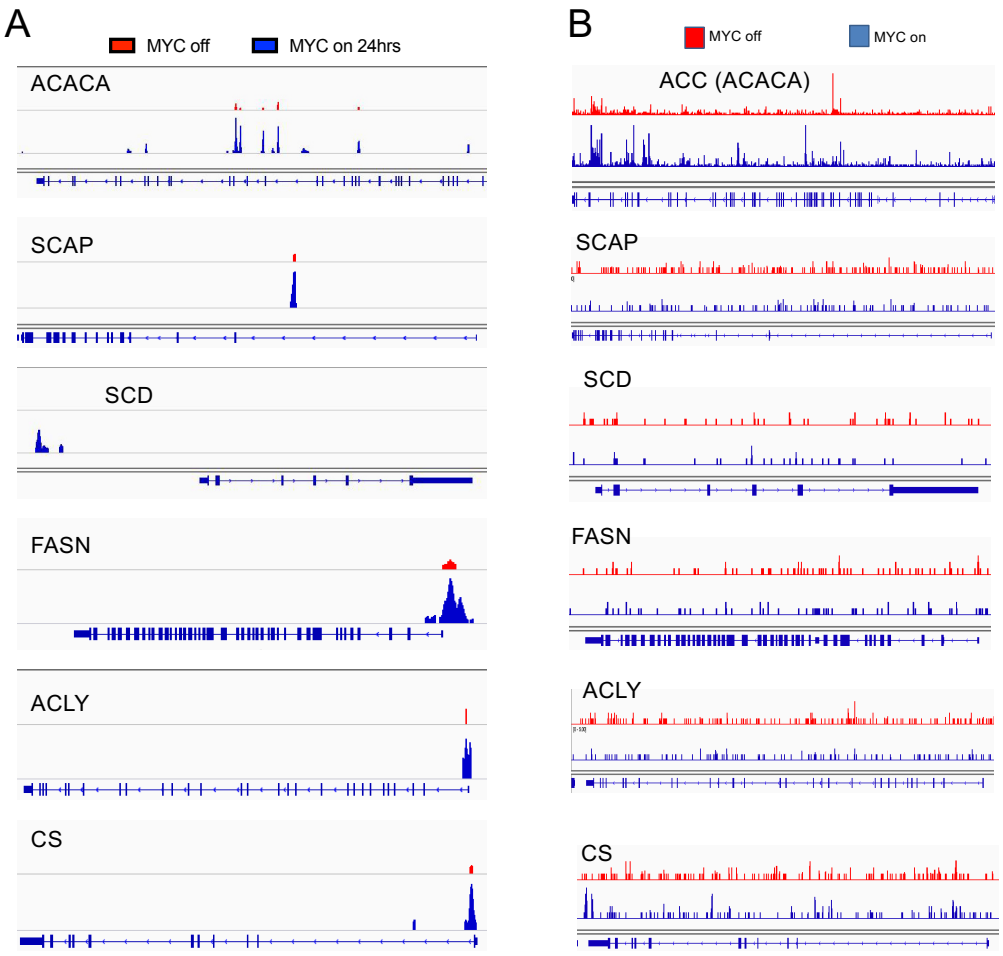
Supplementary Fig. 4. Response to TOFA in human cell lines.

A) A panel of human lymphoid cell lines were treated with increasing doses of TOFA and cell populations were monitored (proliferation) via metabolic activity (cell titer glo assay, Promega)

Supplementary figure 1. RNA-seq profiles of lipogenesis genes from *Eμ-tTA/Tet-O-MYC* model T-ALL

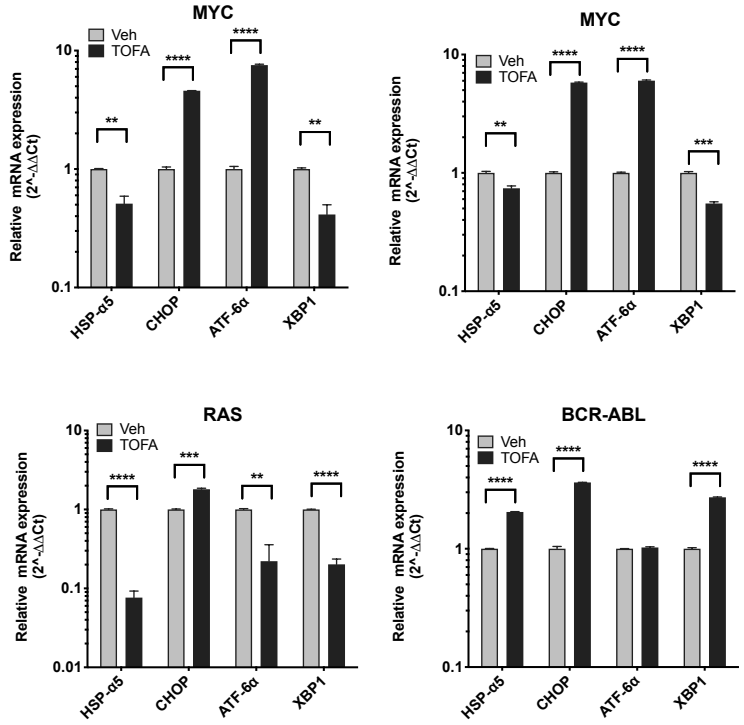


Supplementary figure 2. Direct MYC biding at lipogenesis genes



Supplementary figure 3. Unfolded protein response stress

A



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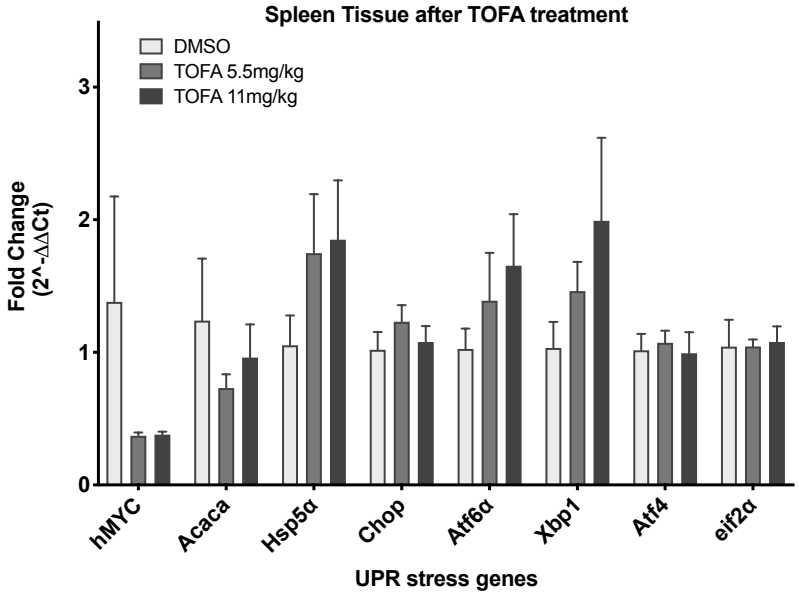

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