



Fig. S3. ESRRR inhibition is associated with immune infiltrations and proinflammatory signaling in patient tumors.

p-value <0.05 *; <0.01 **; <0.001 ***

(A) Correlation of ESRRR activity with macrophage polarization towards M2 across TCGA cancer types. The correlation coefficient and standard error are displayed. (B) Differences of total immune cell infiltration in low- vs. high- ESRRR activity of TCGA tumors. (C) The correlations of ESRRR activity with

activation levels (estimated using ssGSEA score) of energy metabolism pathway across TCGA tumor types. **(D)** KEGG pathways enriched among upregulated genes in low ESRRA patient tumors. Significance (color) and the ratio of enriched genes (size) are displayed. **(E)** The correlations of ESRRA activity with MHC gene expression across TCGA cancer types. Shown are Spearman correlations and their significance. **(F-H)** Analysis of correlation of ESRRA activity with antigen presentation genes in single-cell melanoma cohort (Jerby-Arnon et al.): **(F)** ESRRA activity level in two clusters of cancer cells. **(G)** The clusters were assigned high/low ESRRA-activity clusters due to their difference in ESRRA activity (Wilcoxon test p-value < 2.2E-16). **(H)** Difference of HLA-A/B/C genes in the two clusters shown in F.