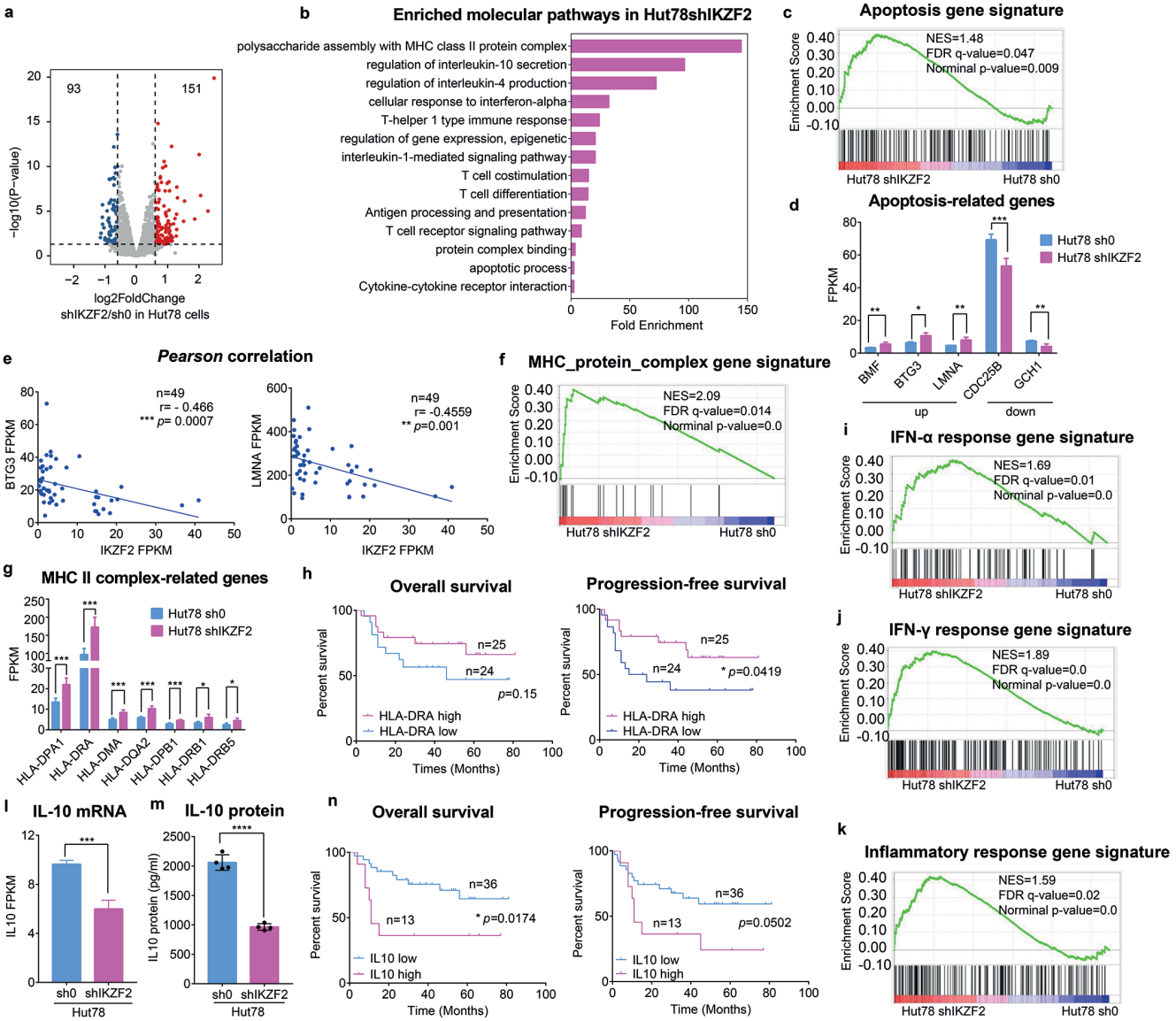

Fig. S3. Comprehensive search for IKZF2 downstream genes and pathways by transcriptomics analysis. (a) Volcano plot of up-regulated (*red*) and down-regulated (green) differential genes (DEGs) (|log2 Fold Change| > 0.6 and *p*-value < 0.05) between Hut78-shIKZF2 cells and sh0. (b) Enriched pathways of up-regulated DEGs in Hut78-shIKZF2 compared with sh0 via DAVID platform. (c) Gene set enrichment analysis (GSEA) enrichment plot for apoptosis gene signatures in control (sh0) and IKZF2-suppressed (shIKZF2) Hut78 cells. (d) mRNA expression of apoptosis-related genes overlapped from differential expressed genes and leader genes of enriched apoptosis gene signatures in IKZF2-suppressed (shIKZF2) Hut78 cells compared with control (sh0). Data are represented as means ± standard deviation (SD). Unpaired Student's *t*-test. $*p < 0.05$; $**p < 0.01$; $***p < 0.001$. (e) Pearson correlation between IKZF2 and BTG3 or LMNA mRNA expression in the 49 MF cohort. (f) GSEA enrichment plot for MHC protein complex gene signatures in IKZF2-suppressed (shIKZF2) and control (sh0). (g) mRNA expression level of MHC II molecules overlapped from differential expressed genes and leader genes of enriched MHC protein complex gene signatures in Hut78-shIKZF2 and sh0. (h) Overall survival (OS) (*left panel*) and progression-free survival (PFS) (*right panel*) of patients with MF stratified by HLA-DRA mRNA expression from the 49 MF cohort. Log rank (*Mantel-Cox*) test. (i–k) GSEA enrichment plot for IFN-α response, IFN-γ response, inflammatory response gene signatures in IKZF2-suppressed (shIKZF2) and control(sh0). (l–m) mRNA (l) and protein (m) expression level of IL-10 overlapped from inflammatory response and IFN-α/γ response-related gene in Hut78-shIKZF2 and sh0. Data are represented as means ± standard deviation (SD). unpaired Student's *t*-test. (n) OS (*left panel*) and PFS (*right panel*) of patients with MF stratified by IL-10 mRNA expression from the 49 MF cohort. Log rank (*Mantel-Cox*) test. $*p < 0.05$; $**p < 0.01$; $***p < 0.001$; $****p < 0.0001$. ns: no significance.