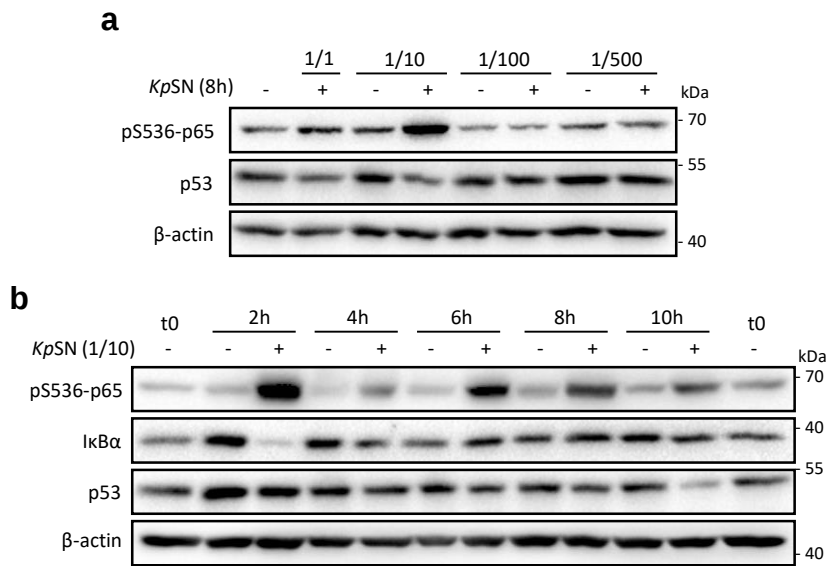
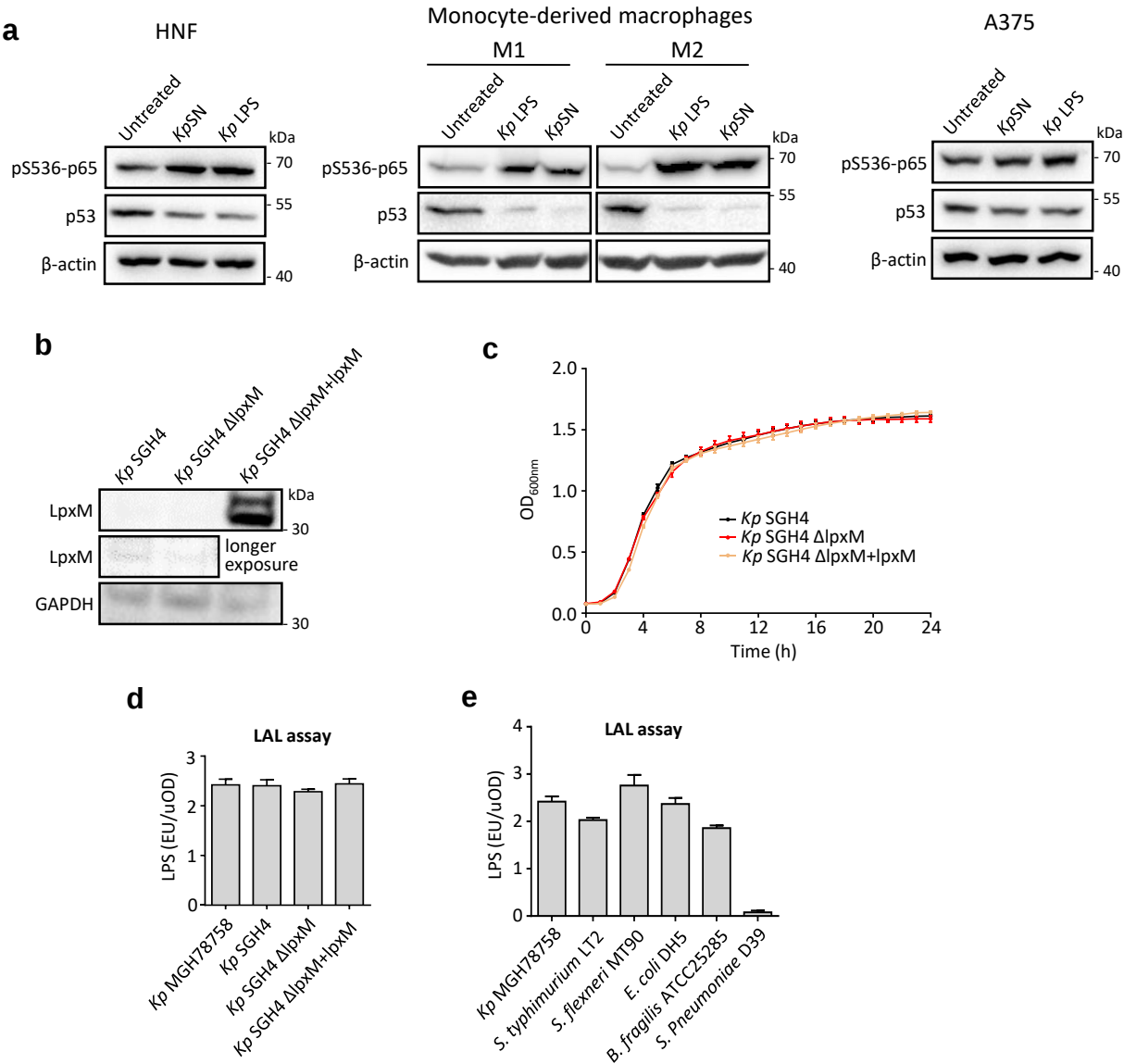


SUPPLEMENTARY FIGURE S1



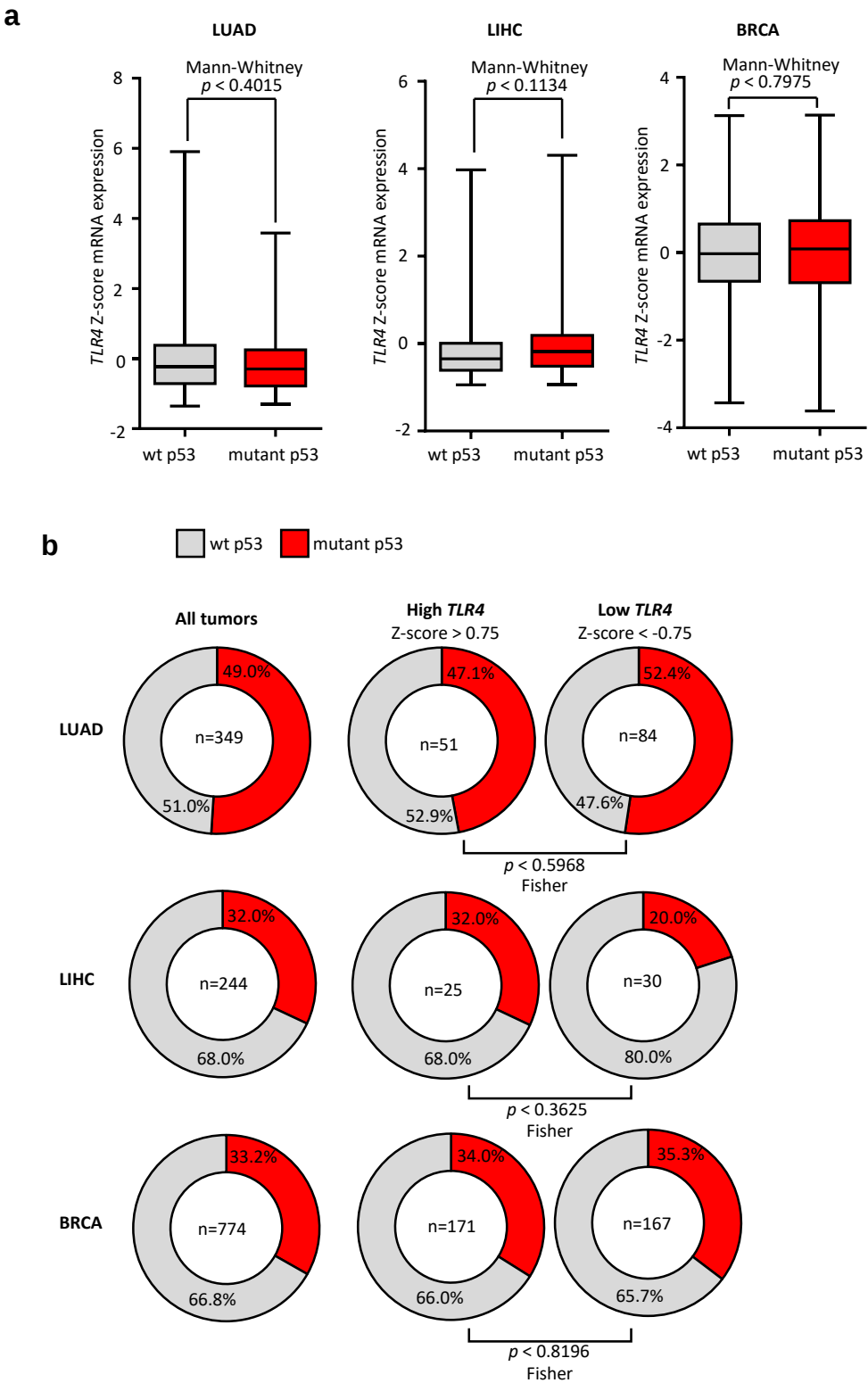
**Supplementary Figure S1. a**, Western blot for dose-response of BJ hTert cells to different dilutions of *KpSN* in cell culture medium. Negative control for pure *KpSN* was normal cell culture medium. For other dilutions, water supplementation of cell culture medium instead of *KpSN* was used as negative control. **b**, Western blot for time course response of BJ hTert cells to *KpSN*.

SUPPLEMENTARY FIGURE S2



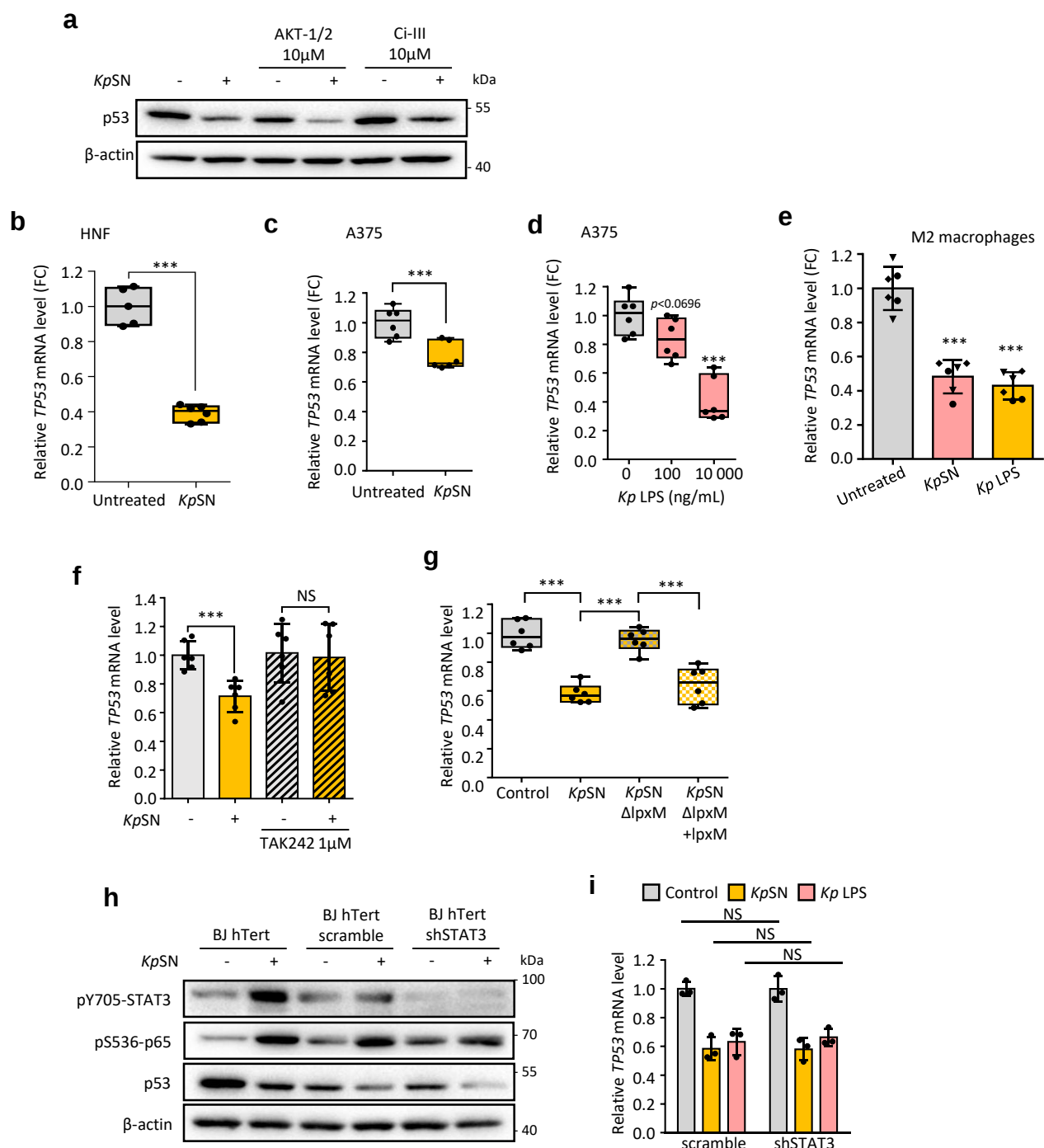
**Supplementary Figure S2.** **a**, Western blot of human normal primary fibroblasts (HNF), PBMC-derived macrophages polarized in M1 or M2 phenotype and A375 melanoma cell line upon 10 h exposure to KpSN or LPS (100 ng/mL). **b**, Western blot for *lpxm* deletion ( $\Delta$ *lpxM*) and complementation ( $\Delta$ *lpxM*+*lpxM*) in *K. pneumoniae* SGH4 strain. **c**, Growth curve of *K. pneumoniae*  $\Delta$ *lpxM* and  $\Delta$ *lpxM*+*lpxM* compared to parental SGH4 strain. **d**, Relative LPS quantification by LAL assay of supernatant from *K. pneumoniae*  $\Delta$ *lpxM* and  $\Delta$ *lpxM*+*lpxM* compared to parental SGH4 strain. **e**, Relative LPS quantification by LAL assay of the supernatant from different bacteria used in Fig. 4g.

SUPPLEMENTARY FIGURE S3



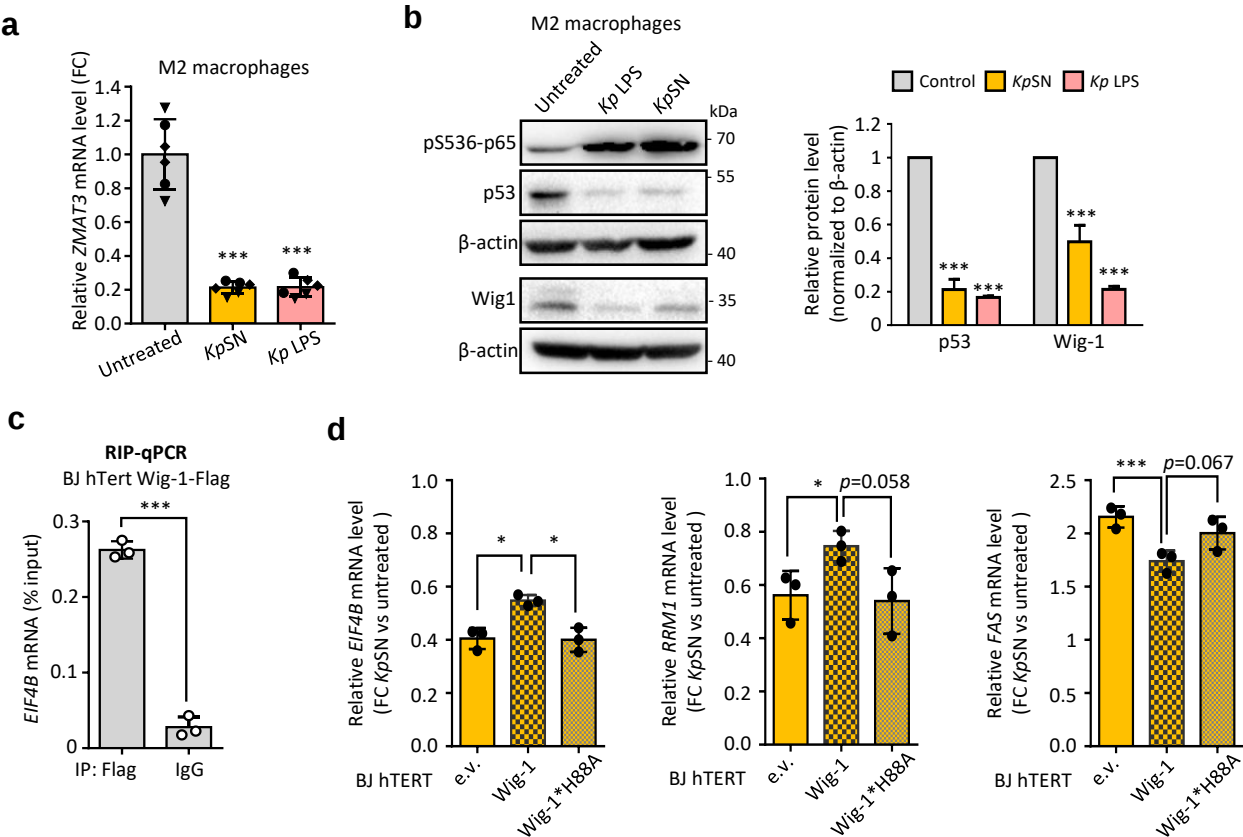
**Supplementary Figure S3.** **a**, Absence of correlation between TLR4 expression and p53 mutation in early grade lung adenocarcinoma (LUAD), liver hepatocarcinoma (LIHC) and breast carcinoma (BRCA) patients data from TCGA. **b**, Comparison of p53 mutation rate between tumors with low and high TLR4 expression for early grade LUAD, LIHC and BRCA.

# SUPPLEMENTARY FIGURE S4



**Supplementary Figure S4.** **a**, Downregulation of p53 protein level induced by *KpSN* in BJ hTert cells is not rescued by AKT inhibitor (AKT-1/2) or calpain inhibitor (Ci-III). **b**, RT-qPCR for *TP53* mRNA level upon *KpSN* treatment of human normal primary fibroblasts (HNF). **c**, RT-qPCR for *TP53* mRNA level upon *KpSN* treatment of A375 melanoma cell line. **d**, RT-qPCR for *TP53* mRNA level upon LPS treatment of A375 melanoma cell line. **e**, RT-qPCR for *TP53* mRNA level upon *KpSN* or 100 ng/mL LPS (8 h) in PBMC-derived macrophages, polarized into M2 phenotype. The different data point symbols indicate different blood donors. **f**, TLR4 dependency of *KpSN*-induced *TP53* mRNA downregulation assessed by RT-qPCR upon treatment with TLR4 inhibitor TAK242 in BJ hTert cells. **g**, RT-qPCR for *TP53* mRNA level upon exposure to supernatant from *K. pneumoniae*  $\Delta$ *lpxM* and  $\Delta$ *lpxM*+*lpxM*. **h**, STAT3 independency of *KpSN*-induced p53 downregulation assessed by Western blots using stable STAT3 shRNA-mediated knock-down BJ hTert cells. **i**, RT-qPCR for *TP53* mRNA level in BJ hTert cells with stable STAT3 shRNA-mediated knock-down upon 8 h *KpSN* or LPS (100ng/mL). \*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ; NS non-significant.

SUPPLEMENTARY FIGURE S5



**Supplementary Figure S5. a**, RT-qPCR for *ZMAT3* mRNA level upon *KpSN* or 100 ng/mL LPS (8 h) in PBMC-derived macrophages, polarized into M2 phenotype. The different data point symbols indicate different blood donors. \*\*\*  $p < 0.01$ . **b**, Left panel: Western blot of M2 macrophages upon *KpSN* or LPS treatment. Right panel: densitometric quantification of p53 and Wig-1 Western blot bands normalized to  $\beta$ -actin level. **c**, Validation of Wig-1 binding to *EIF4B* mRNA in BJ hTert cells assessed by RIP-qPCR. **d**, RT-qPCR for Wig-1 targets *EIF4B*, *RRM1* and *FAS* upon overexpression of wild type or RNA-binding deficient H88A mutant Wig-1 show that Wig-1 downregulation by *KpSN* participates in *EIF4B* and *RRM1* repression and *FAS* activation.