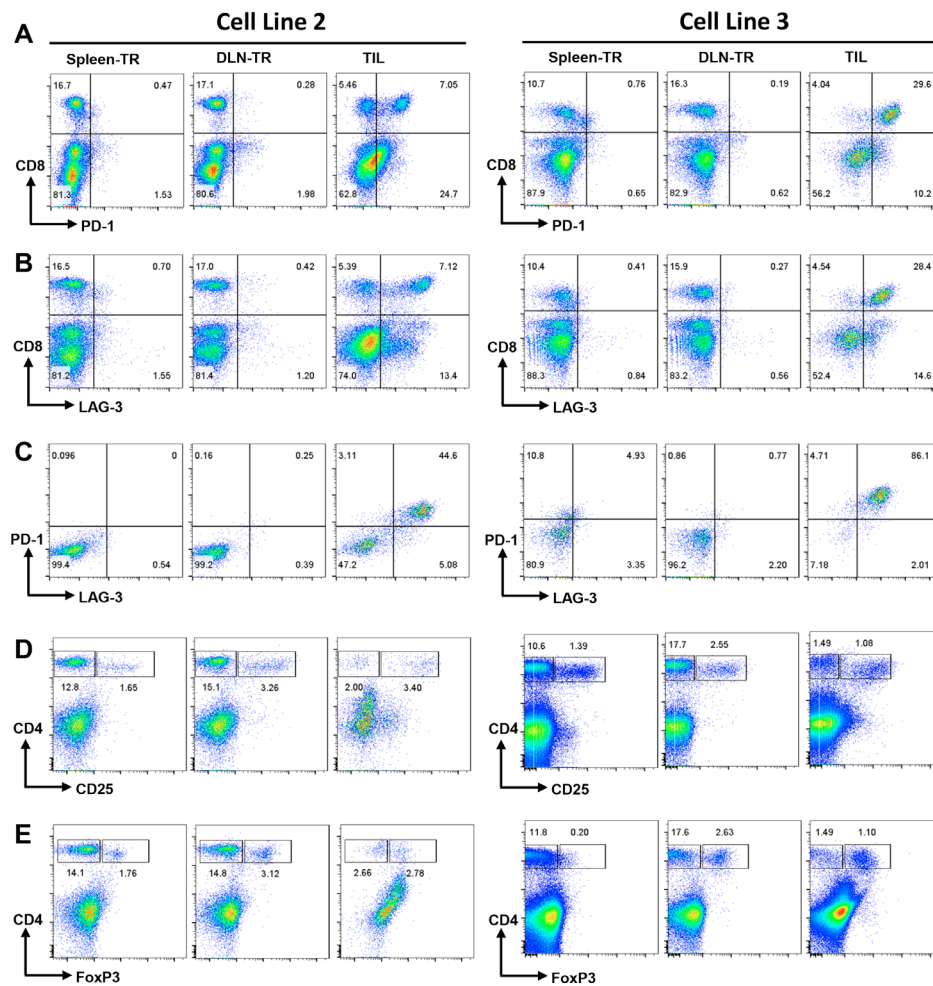# Squamous cell carcinomas escape immune surveillance via inducing chronic activation and exhaustion of CD8+ T cells co-expressing PD-1 and LAG-3 inhibitory receptors

Supplementary Materials

Supplementary Figure S1: Immune profiling of TILs in additional KRS-SCC cell lines. KRS-SCC cell line 2 (A223-H496) or cell line 3 (B866) were injected into wt B6 recipient mice individually to validate the immune phenotypes observed in cell line 1 (A223-H500). (**A–C**) Representative FACS plots are shown for CD8 vs PD-1 (A), CD8 vs LAG-3 (B), PD-1 vs LAG-3 gated on CD8+ (**C**). (**D–E**) Representative FACS plots are shown for CD4 vs CD25 (D) or CD4 vs FoxP3 (E) staining in different groups.

Supplemental Table S1: Summary of *in vivo* experiment replicates and sample size

Experiment	# of Experiments	Cell line	Sample
TIL Profile	Exp 1	Cell line 1	Tumor ($n = 8$)
	Exp 2	Cell line 1	Tumor ($n = 6$)
	Exp 3	Cell line 1	Tumor ($n = 12$)
	Exp 4	Cell line 2	Tumor ($n = 8$)
	Exp 5	Cell line 3	Tumor ($n = 6$)
	Exp 6	Cell line 2	Tumor ($n = 6$)
	Exp 7	Cell line 1	Tumor ($n = 10$)
Wt vs CD8KO recipients	Exp 1	Cell line 1	Control ($n = 6$), CD8KO ($n = 6$)
	Exp 2	Cell line 1	Control ($n = 6$), CD8KO ($n = 6$)
	Exp 3	Cell line 1	Control ($n = 6$), CD8KO ($n = 6$)
	Exp 4	Cell line 1	Control ($n = 12$), CD8KO ($n = 12$)
Dual Inhibition	Exp 1	Cell line 1	Control ($n = 10$), Treatment ($n = 14$)
	Exp 2	Cell line 1	Control ($n = 8$), Treatment ($n = 8$)
	Exp 3	Cell line 1	Control ($n = 4$), Treatment ($n = 6$)