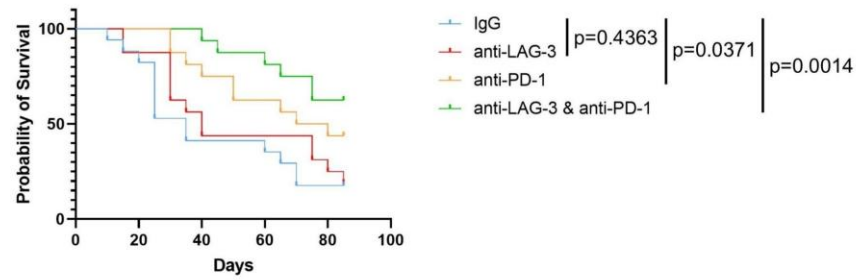
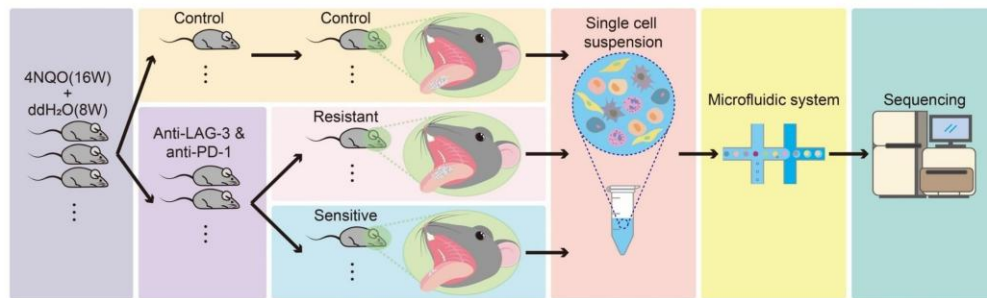


Supplementary Figure 1

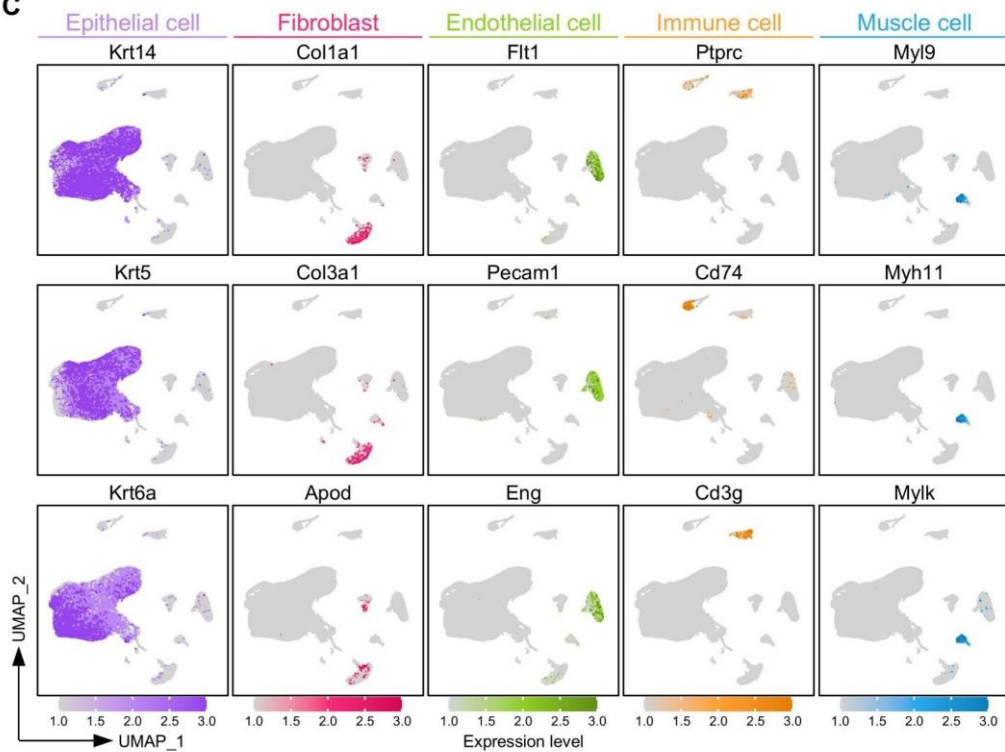
A



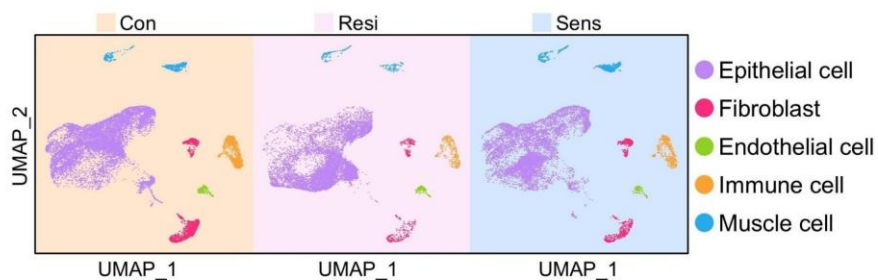
B



C



D



Supplementary Figure 1. Establishment of mouse cancer model for combination therapy resistance, related to Figure 1

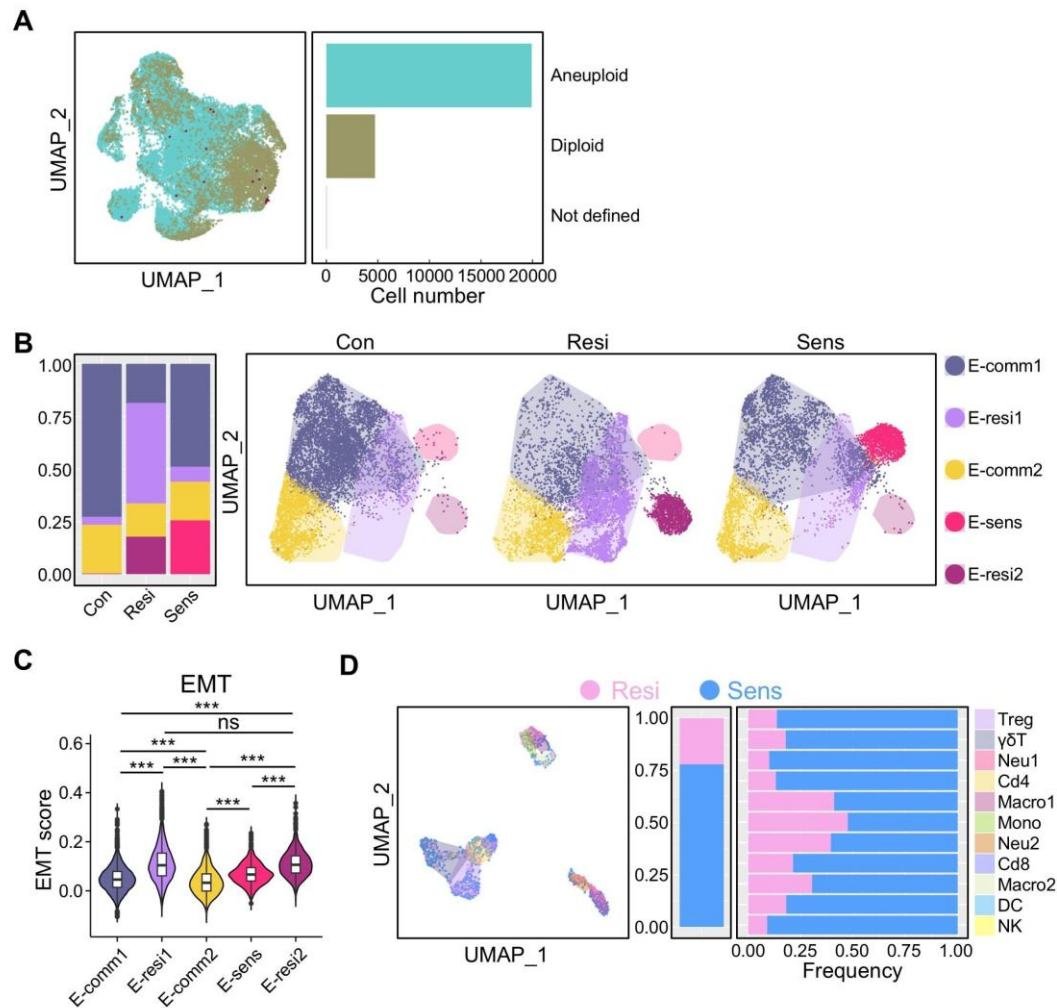
(A) The Kaplan-Meier overall survival curve in different treatment groups. *P* values were calculated by Log-rank test.

(B) Strategy for the treatment of HNSCC mice and single cell RNA sequencing (scRNA-seq) employed in this study.

(C) FeaturePlot graph depicting characteristic genes of five cellular clusters. Each cluster is represented by three specifically expressed genes.

(D) UMAP plot depicting the distribution of five cellular clusters across three groups.

Supplementary Figure 2



Supplementary Figure 2. Characterization of resistant tumor cells against combination therapy, related to Figure 2

(A) Epithelial cell copy numbers were annotated using CopyKAT, with cell color indicating ploidy status. The number of each ploidy status is displayed in corresponding bar graphs on the right.

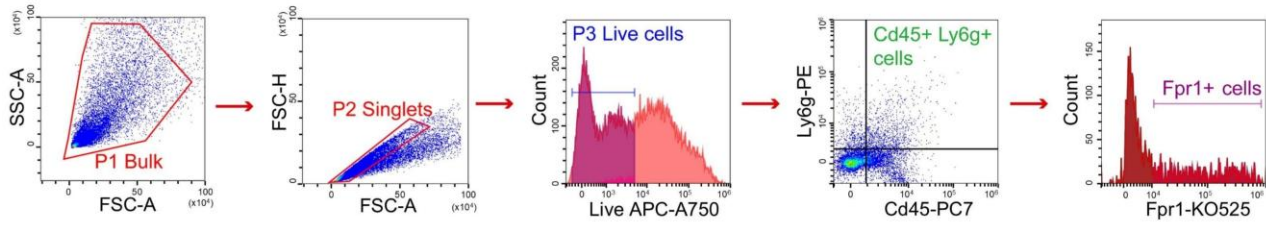
(B) The UMAP plot illustrates the distribution of five epithelial cell subtypes across three groups. On the left, the proportion of each epithelial cell subtype within each group is displayed.

(C) Violin plot depicting the expression EMT score across different subtypes of epithelial cells. The box plot elements are defined as described in the Statistics and Reproducibility section. Each group includes cells from 9 mice. *P* values were calculated one-way ANOVA.

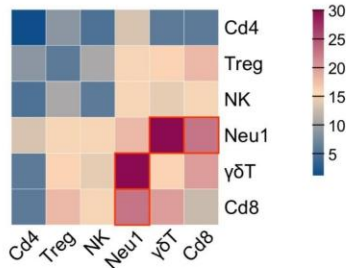
(D) The UMAP plot displays the distribution of two groups (resistant and sensitive) on the left, the proportion of cells between the two groups in the middle, and the proportion of Treg, $\gamma\delta$ T, Neu1, Cd4, Macro1, Mono, Neu2, Cd8, Macro2, DC, and NK within these two groups on the right.

Supplementary Figure 3

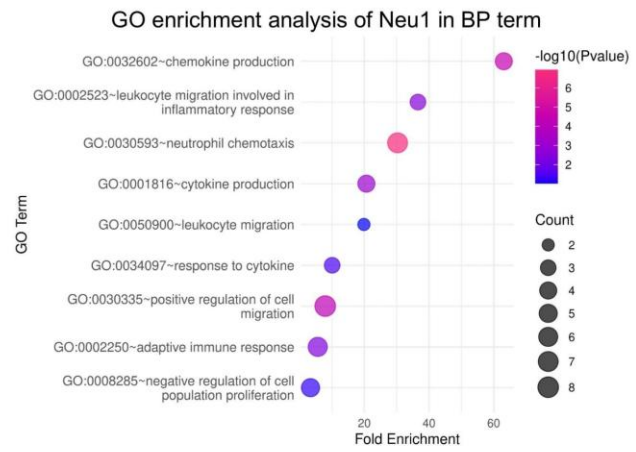
A



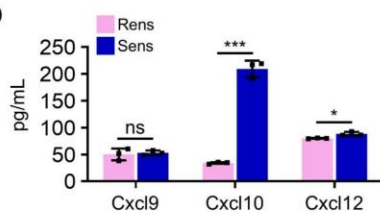
B



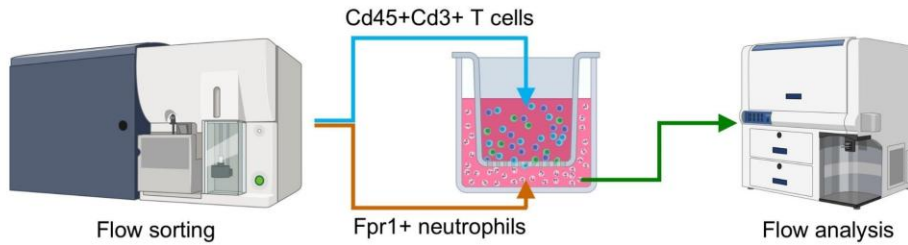
C



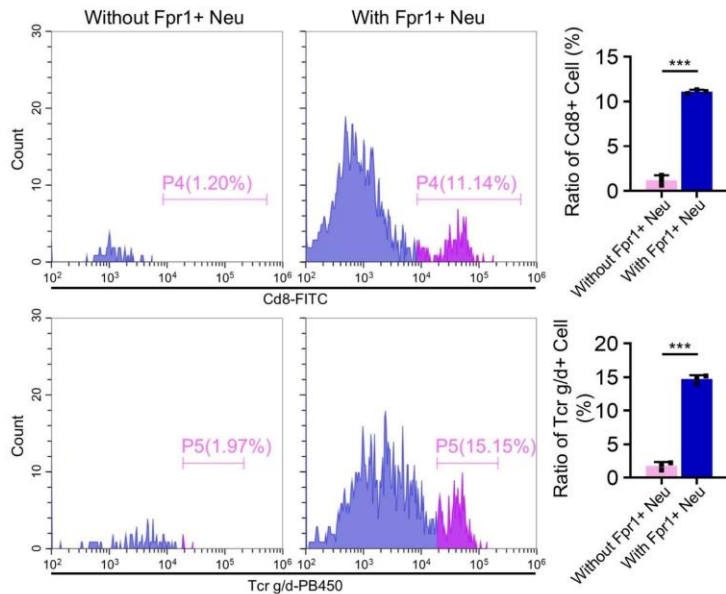
D



E



F



Supplementary Figure 3. Fpr1⁺ neutrophils are associated with cytotoxic T cells, related to Figure 3

(A) This representative schema describes the gating strategies for Fpr1⁺ neutrophils in mouse tumors and corresponds to Figure 3H.

(B) Heatmap showing the ligand-receptor interaction between Neu1 cells and T cells subpopulations based on CellPhoneDB.

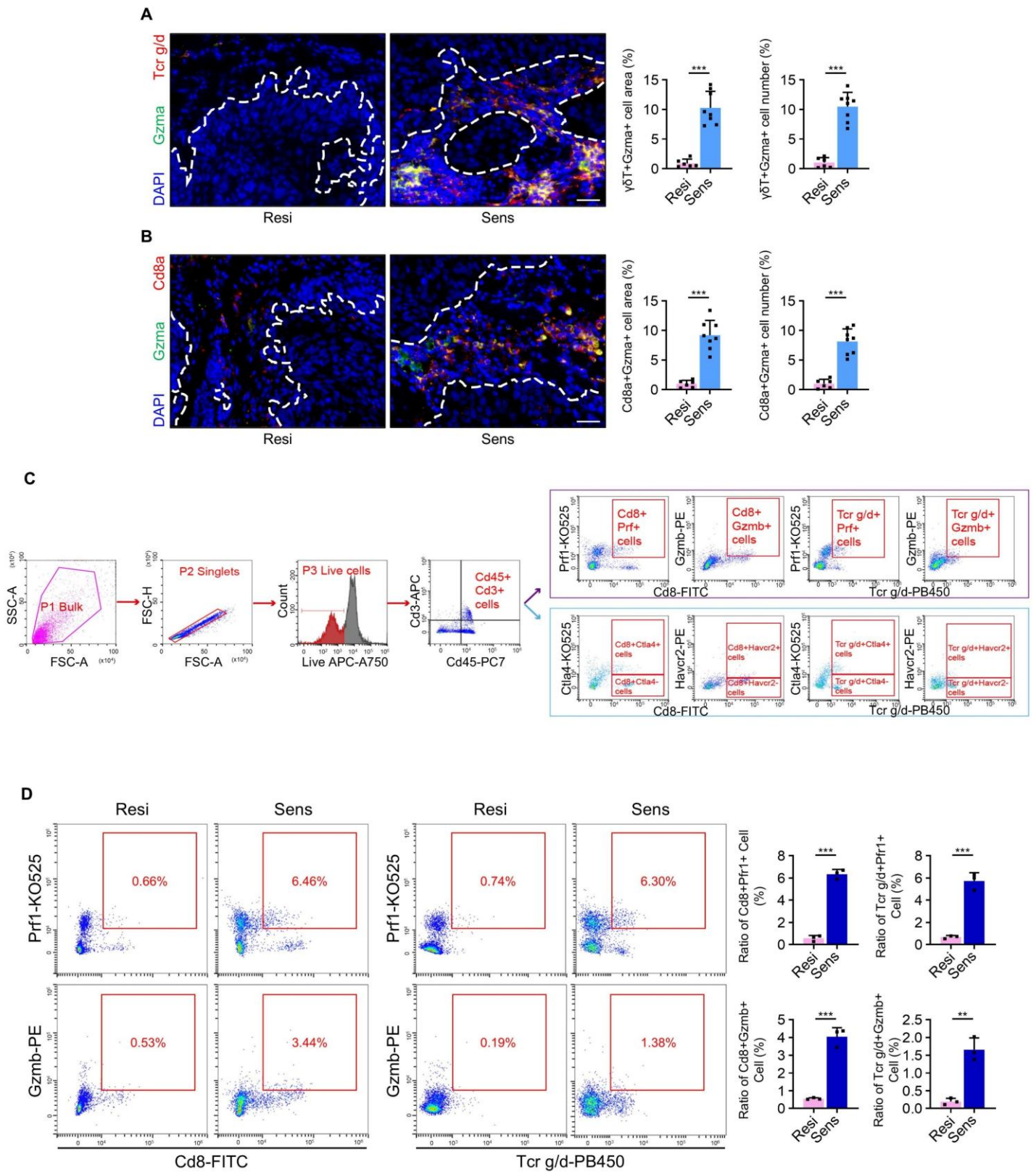
(C) Gene Ontology (GO) enrichment analysis for genes specific to Neu1 in Biological Process (BP) term.

(D) ELISA analysis revealed differences in chemokine production between Neu1(Fpr1⁺ neutrophils) sorted from the Rens and Sens groups. The experiment was independently repeated three times. Data are represented as mean $\pm$ SD. *P* values are presented by two-tailed unpaired Student's *t* test.

(E) The schematic illustrates the process of sorting Fpr1⁺ neutrophils and Cd45⁺Cd3⁺ T cells from Sens group mice, followed by co-culture, with subsequent flow cytometry analysis of the cells in the lower layer.

(F) Representative flow cytometry plots (left) and statistical analysis (right) of Cd8⁺ and Tcr g/d⁺ T cells in different groups. In the Without Fpr1⁺ Neu group, the lower chamber contains Fpr1⁻ neutrophils. The experiment was independently repeated three times. Data are represented as mean $\pm$ SD. *P* values are presented by two-tailed unpaired Student's *t* test.

Supplementary Figure 4



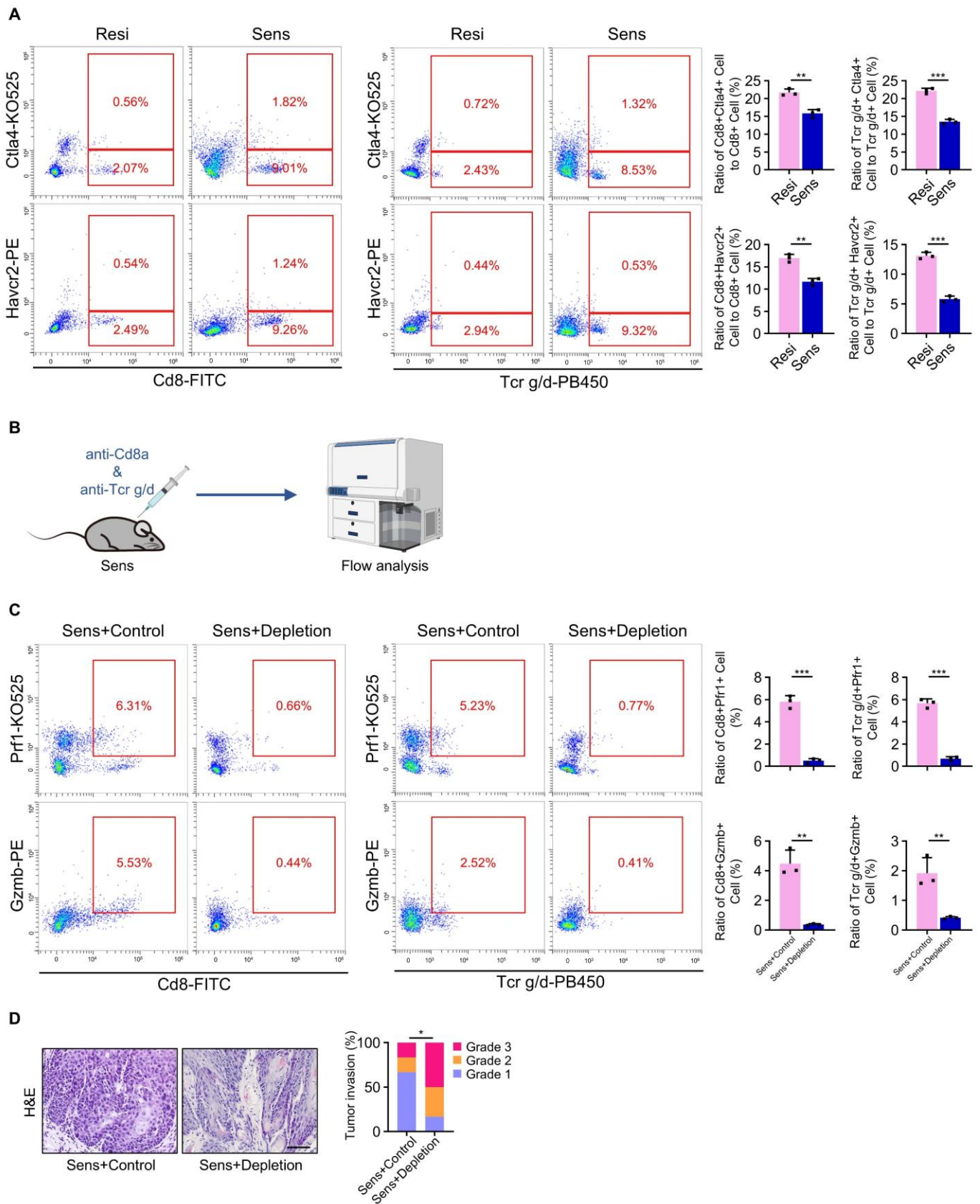
Supplementary Figure 4. Fpr1⁺ neutrophils are associated with cytotoxic T cells, related to Figure 3

(A and B) Representative immunofluorescence staining of Gzma+ $\gamma\delta$ T (A) or Gzma+Cd8 T (B) cells in mouse HNSCC tissues from two groups. Epithelial tissues were stained with anti-Gzma antibody (green) and anti-Tcr g/d (A) or anti-Cd8a (B) antibody (red). Cell nuclei were stained with DAPI (blue). Scale bar, 30 μ m. On the right, the corresponding percentages of Gzma+ $\gamma\delta$ T (A) or Gzma+Cd8 T (B) cells in terms of area and number are provided. n = 6 mice in resistant group, n = 8 mice in sensitive group. Data are represented as mean $\pm$ SD. *P* values are presented by two-tailed unpaired Student's *t* test.

(C) This representative schema illustrates the gating strategies for Cd8+Prfl+ double-positive, Cd8+Gzmb+ double-positive, Tcr g/d+Prfl+ double-positive, and Tcr g/d+Gzmb+ double-positive cells in mouse tumors, as well as the gating strategies for exhaustion markers Ctla4 and Havcr2 under Cd8+ and Tcr g/d+ conditions. These gating strategies corresponds to Supplementary Figure 4D; Supplementary Figure 5A and C.

(D) Representative flow cytometry plots (left) and statistical analysis (right) of Cd8+Prfl+, Cd8+Gzmb+, Tcr g/d+Prfl+, and Tcr g/d+Gzmb+ cells in Resi and Sens groups. The experiment was independently repeated three times. Data are represented as mean $\pm$ SD. *P* values are presented by two-tailed unpaired Student's *t* test.

Supplementary Figure 5



Supplementary Figure 5. Fpr1+ neutrophils are associated with cytotoxic T cells, related to Figure 3

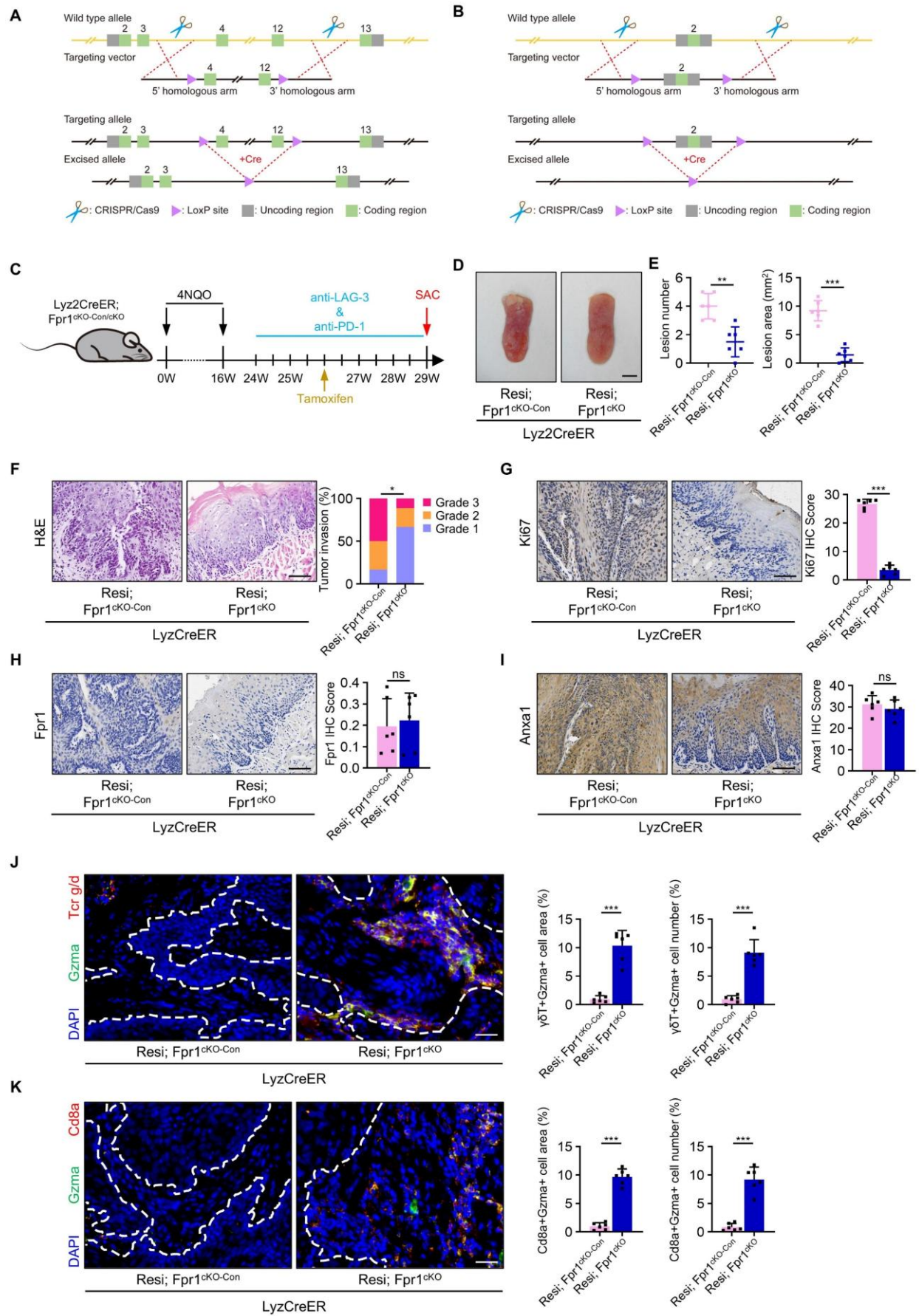
(A) Representative flow cytometry plots (left) and statistical analysis (right) of the exhaustion status of Cd8T and $\gamma\delta$ T cells in the Resi and Sens groups. The experiment was independently repeated three times. Data are represented as mean $\pm$ SD. *P* values are presented by two-tailed unpaired Student's *t* test.

(B) This schematic illustrates the process of depleting the corresponding T cell populations in Sens group mice using anti-Cd8a and anti-Tcr g/d antibodies, followed by flow cytometry analysis of Cd8T and $\gamma\delta$ T cells within the tumor.

(C) Representative flow cytometry plots (left) and statistical analysis (right) of Cd8+Prfl+, Cd8+Gzmb+, Tcr g/d+Prfl+, and Tcr g/d+Gzmb+ cells in different groups. The experiment was independently repeated three times. Data are represented as mean $\pm$ SD. *P* values are presented by two-tailed unpaired Student's *t* test.

(D) Representative H&E staining of HNSCC and Quantification of HNSCC invasion grades in Sens+Control and Sens+Depletion groups. Scale bar, 65 μ m. *n* = 6 mice in each group. Statistical significance was assessed using the Pearson chi-square test. *P* value is exact and two-sided.

Supplementary Figure 6



Supplementary Figure 6. Fpr1⁺ neutrophils are associated with cytotoxic T cells, related to Figure 4

(A and B) Targeting strategy of Anxa1^{CKO} (A) and Fpr1^{CKO} (B) mouse. This design involves conditionally excising the depicted exons using the Cre-loxP system.

(C) The experimental design of the HNSCC tumorigenesis model and treatment strategy in the Resi; Fpr1^{CKO-Con} and Resi; Fpr1^{CKO} groups.

(D) Representative image of tongue visible lesions in Resi; Fpr1^{CKO-Con} and Resi; Fpr1^{CKO} groups. n = 6 mice in each group. Scale bar, 2 mm.

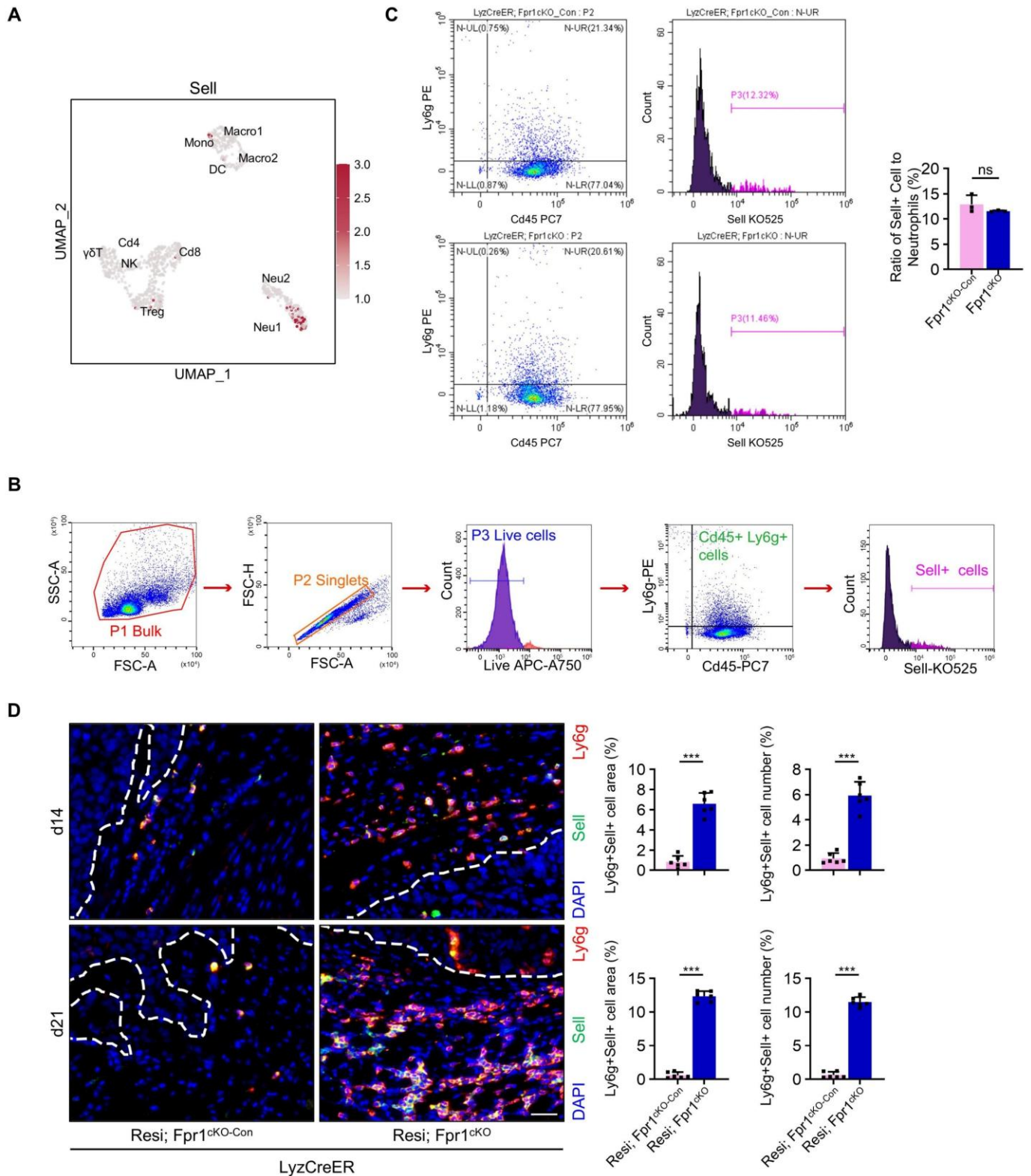
(E) Quantification of HNSCC lesion number and lesion area (mm³) in Resi; Fpr1^{CKO-Con} and Resi; Fpr1^{CKO} groups. n = 6 mice in each group. Data are represented as mean ± SD. *P* values are presented by two-tailed unpaired Student's *t* test.

(F) Representative H&E staining of HNSCC and Quantification of HNSCC invasion grades in Resi; Fpr1^{CKO-Con} and Resi; Fpr1^{CKO} groups. Scale bar, 65 μm. n = 6 mice in each group. Statistical significance was assessed using the Pearson chi-square test. *P* value is exact and two-sided.

(G-I) Representative IHC staining and IHC Score of Ki67 (G), Fpr1 (H) and Anxa1 (I) in HNSCC of Resi; Fpr1^{CKO-Con} and Resi; Fpr1^{CKO} groups. The scale bar is 65 μm. n = 6 mice in each group. Data are represented as mean ± SD. *P* values are presented by two-tailed unpaired Student's *t* test.

(J and K) Representative immunofluorescence staining of Gzma+γδT (J) or Gzma+Cd8 T (K) cells in mouse HNSCC tissues from Resi; Fpr1^{CKO-Con} and Resi; Fpr1^{CKO} groups. Epithelial tissues were stained with anti-Gzma antibody (green) and anti-Tcr g/d (J) or anti-Cd8a (K) antibody (red). Cell nuclei were stained with DAPI (blue). Scale bar, 30 μm. On the right, the corresponding percentages of Gzma+γδT (J) or Gzma+Cd8 T (K) cells in terms of area and number are provided. n = 6 mice in each group. Data are represented as mean ± SD. *P* values are presented by two-tailed unpaired Student's *t* test.

Supplementary Figure 7



Supplementary Figure 7. Fpr1⁺ neutrophils are associated with cytotoxic T cells, related to Figure 4

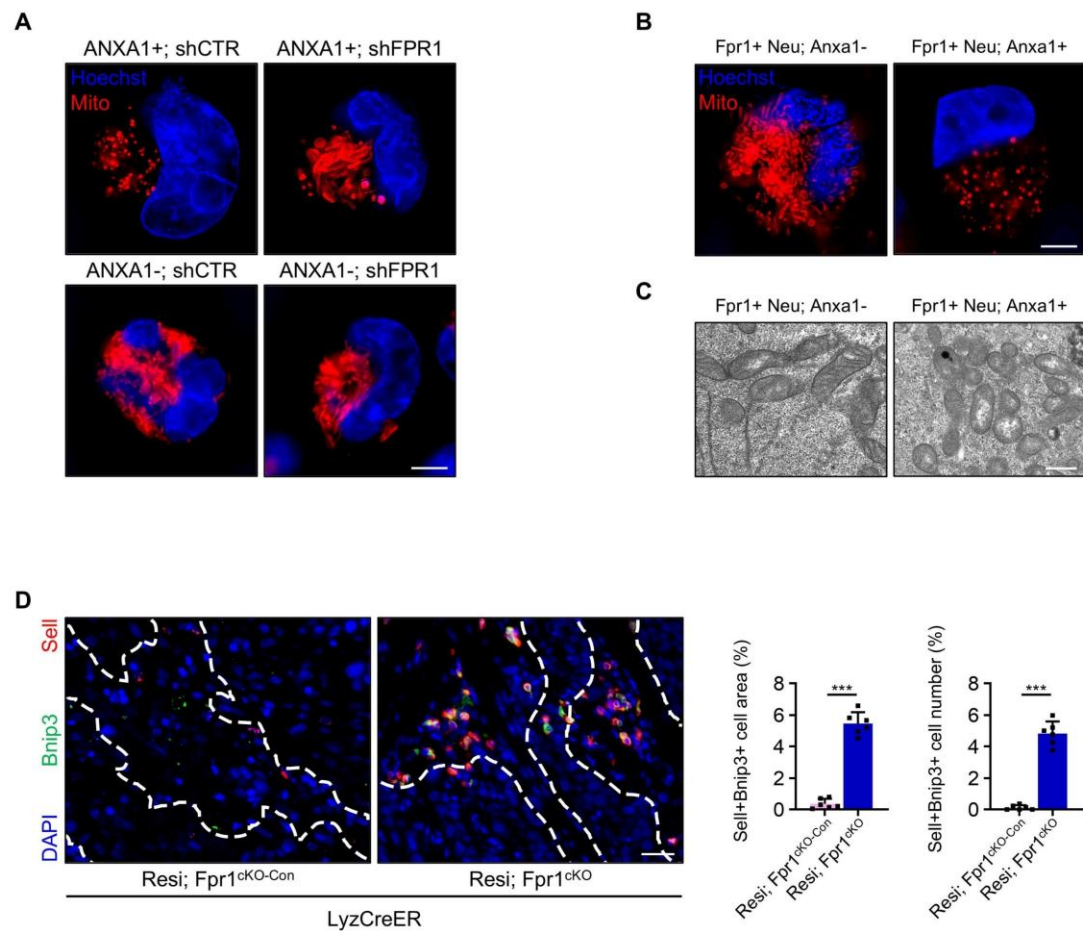
(A) The FeaturePlot depicts the expression of Sell in immune cells.

(B) This representative schema describes the gating strategies for Sell⁺ neutrophils in bone marrow and corresponds to Supplementary Figure 4D.

(C) Representative flow cytometry plots (left) and statistical analysis (right) of Ly6g⁺Sell⁺ neutrophils in Fpr1^{cKO-Con} and Fpr1^{cKO} groups without combination therapy. The experiment was independently repeated three times. Data are represented as mean $\pm$ SD. *P* value is presented by two-tailed unpaired Student's *t* test.

(D) Representative immunofluorescence staining of mouse HNSCC tissues from Resi; Fpr1^{cKO-Con} and Resi; Fpr1^{cKO} groups treated with combination therapy for 14 and 21 days. Epithelial tissues were stained with anti-Sell antibody (green) and anti-Ly6g antibody (red). Cell nuclei were stained with DAPI (blue). Scale bar, 30 μ m. On the right, the corresponding percentages of Ly6g⁺Sell⁺ cells in terms of area and number are provided. d14: *n* = 6 mice in each group; d21: *n* = 6 mice in each group. Data are represented as mean $\pm$ SD. *P* values are presented by two-tailed unpaired Student's *t* test.

Supplementary Figure 8



Supplementary Figure 8. Anxa1-Fpr1 axis regulated the mitochondrial fission of neutrophils, related to Figure 4

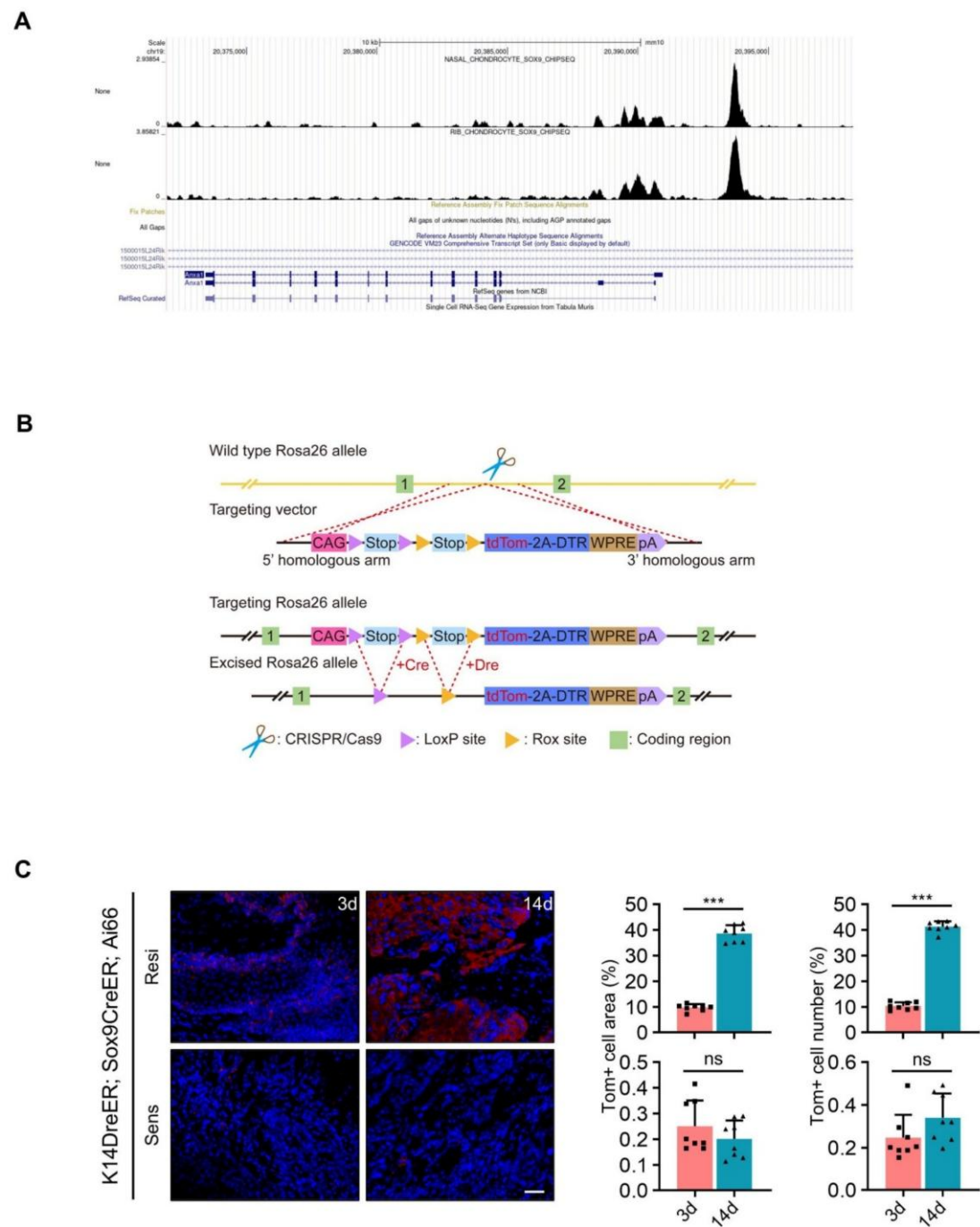
(A) Representative fluorescence images of mitochondria from the ANXA1⁺; shCTR, ANXA1⁺; shFPR1, ANXA1⁻; shCTR and ANXA1⁻; shFPR1 groups. Scale bar, 5 μ m. The experiment was independently repeated three times. The knockdown group was selected using shFPR1-2.

(B) Representative fluorescence images of mitochondria in sorted Fpr1⁺ neutrophils treated with Anxa1. Mitochondria were stained with MitoTracker (red), and cell nuclei were stained with Hoechst 33342 (blue). The experiment was independently repeated three times. Scale bar, 5 μ m.

(C) Representative electron microscopy images showing the mitochondrial morphology of sorted Fpr1⁺ neutrophils, with or without Anxa1 treatment. The experiment was independently repeated three times. Scale bar, 400nm.

(D) Representative immunofluorescence staining of Sell+Bnip3+ neutrophils in mouse HNSCC tissues from Resi; Fpr1^{cKO-Con} and Resi; Fpr1^{cKO} groups. Epithelial tissues were stained with anti-Bnip3 antibody (green) and anti-Sell antibody (red). Cell nuclei were stained with DAPI (blue). Scale bar, 30 μ m. On the right, the corresponding percentages of Sell+Bnip3+ neutrophils in terms of area and number are provided. n = 6 mice in each group. Data are represented as mean $\pm$ SD. *P* values are presented by two-tailed unpaired Student's *t* test.

Supplementary Figure 9



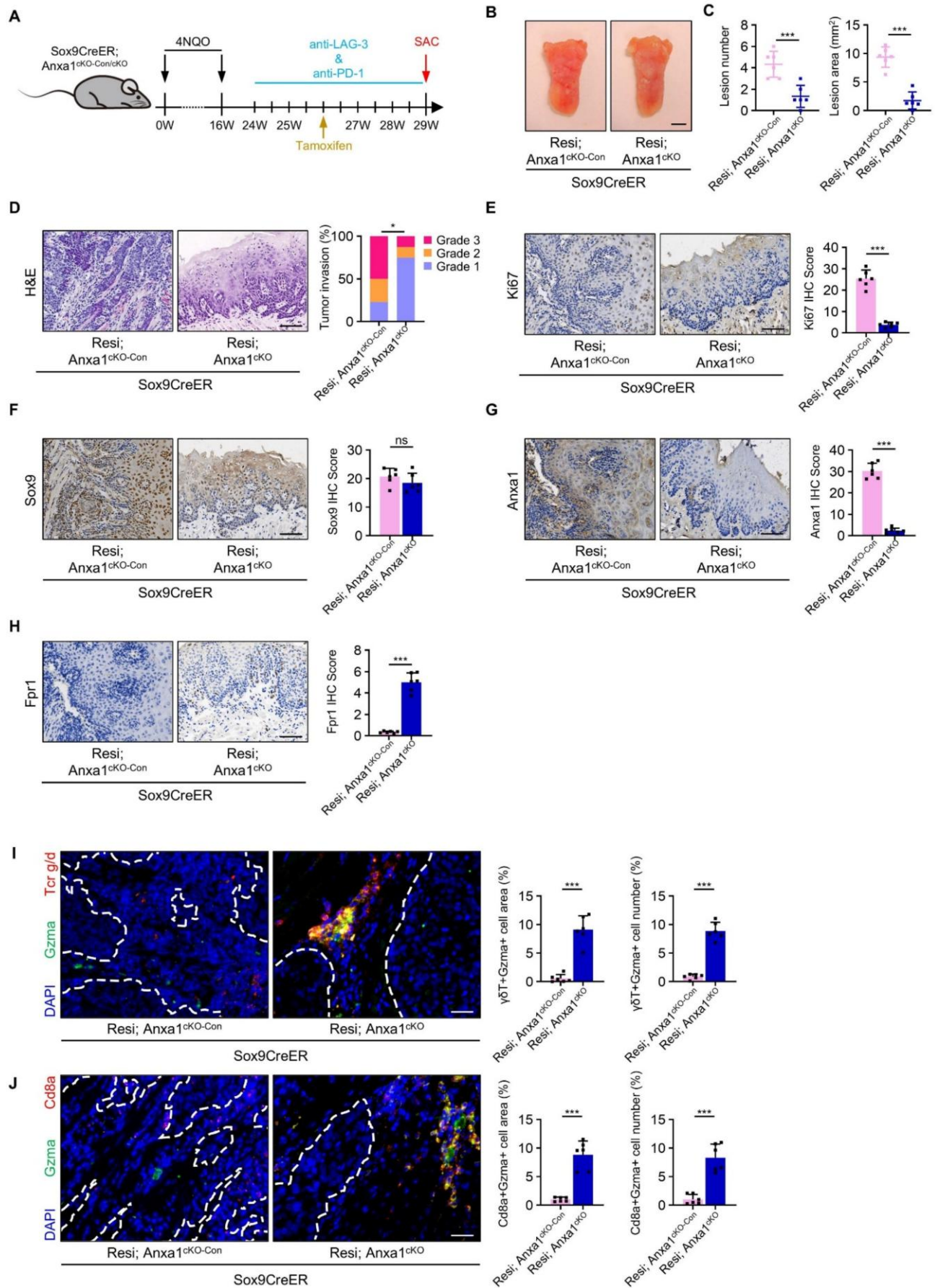
Supplementary Figure 9. Sox9 mediates resistance in HNSCC by acting as a transcription factor for Anxa1, related to Figure 7

(A) The DNA binding peak profile of Sox9 binding to Anxa1 DNA in mouse nasal and rib chondrocytes, sourced from the Cistrome database, was visualized using the UCSC Genome Browser.

(B) Targeting strategy of DTR^{CKI} mouse. Insertion of the targeting vector R26-e(CAG-LSL-RSR-tdTom-2A-DTR-WPRE-polyA)1 into the Rosa26 locus by homologous recombination in mouse oosperm cells.

(C) Representative images depicting the temporal changes of Sox9⁺ epithelial tumor cells and their progeny in resistant and sensitive groups were obtained using *K14DreER*; *Sox9CreER*; *Ai66-Tomato* mice. On the right, the corresponding percentages of Tom⁺ cells in terms of area and number are provided. n = 8 mice in each group. Data are represented as mean $\pm$ SD. *P* values are presented by two-tailed unpaired Student's *t* test.

Supplementary Figure 10



Supplementary Figure 10. Sox9 mediates resistance in HNSCC by acting as a transcription factor for Anxa1, related to Figure 7

(A) The experimental design of the HNSCC tumorigenesis model and treatment strategy in the Resi; Sox9-Anxa1^{cKO-Con} and Resi; Sox9-Anxa1^{cKO} groups.

(B) Representative image of tongue visible lesions in Resi; Sox9-Anxa1^{cKO-Con} and Resi; Sox9-Anxa1^{cKO} groups. n = 6 mice in each group. Scale bar, 2 mm.

(C) Quantification of HNSCC lesion number and lesion area (mm³) in Resi; Sox9-Anxa1^{cKO-Con} and Resi; Sox9-Anxa1^{cKO} groups. n = 6 mice in each group. Data are represented as mean ± SD. *P* values are presented by two-tailed unpaired Student's *t* test.

(D) Representative H&E staining of HNSCC and Quantification of HNSCC invasion grades in Resi; Sox9-Anxa1^{cKO-Con} and Resi; Sox9-Anxa1^{cKO} groups. Scale bar, 65 μm. n = 6 mice in each group. Statistical significance was assessed using the Pearson chi-square test. *P* value is exact and two-sided.

(E-H) Representative IHC staining and IHC Score of Ki67 (E), Sox9 (F), Anxa1 (G) and Fpr1 (H) in HNSCC of Resi; Sox9-Anxa1^{cKO-Con} and Resi; Sox9-Anxa1^{cKO} groups. The scale bar is 65 μm. n = 6 mice in each group. Data are represented as mean ± SD. *P* values are presented by two-tailed unpaired Student's *t* test.

(I and J) Representative immunofluorescence staining of Gzma+γδT (I) or Gzma+Cd8 T (J) cells in mouse HNSCC tissues from Resi; Sox9-Anxa1^{cKO-Con} and Resi; Sox9-Anxa1^{cKO} groups. Epithelial tissues were stained with anti-Gzma antibody (green) and anti-Tcr g/d (I) or anti-Cd8a (J) antibody (red). Cell nuclei were stained with DAPI (blue). Scale bar, 30 μm. On the right, the corresponding percentages of Gzma+γδT (I) or Gzma+Cd8 T (J) cells in terms of area and number are provided. n = 6 mice in each group. Data are represented as mean ± SD. *P* values are presented by two-tailed unpaired Student's *t* test.

Supplementary Table 1 related to Figure 2, Proportions and numbers of immune cells in the Resi and Sens groups based on single-cell seq data

Cell type	Resi(%)	Sens(%)	Resi(count)	Sens(count)
Treg	13.74	86.26	29	182
$\gamma\delta$ T	17.96	82.04	37	169
Neu1	10.07	89.93	14	125
Cd4	13.24	86.76	18	118
Macro1	41.05	58.95	39	56
Mono	47.56	52.44	39	43
Neu2	39.47	60.53	30	46
Cd8	21.43	78.57	15	55
Macro2	30.51	69.49	18	41
DC	18.18	81.82	2	9
NK	9.09	90.91	1	10

Supplementary Table 2 related to Methods, Detailed information on the antibodies, reagents, kits, and other materials used in the methods		
REAGENT or RESOURCE	SOURCE	IDENTIFIER
Antibodies [dilution ratio]		
Anti-Ki67 [1:200]	Novus	Cat#NB500-170
Anti-Caspase3 [1:200]	Cell Signaling Technology	Cat#9661S
Anti-Sox9 [1:200]	Merck millipore	Cat#AB5535
Anti-Annexin I [1:200]	Santa Cruz	Cat#sc-12740
Anti-Fpr1 [1:100]	Immunoway	Cat#YT1768
Anti-Fpr1 [1:100]	Novus	Cat#NLS1878
Anti-BNIP3 [1:100; 1:2000]	Cell Signaling Technology	Cat#44060
Anti-BNIP3 [1:100; 1:2000]	Santa Cruz	Cat#sc-56167
Anti-Ly6g [1:100]	Abcam	Cat#ab25377
Anti-Sell [1:200]	Santa Cruz	Cat#sc-390756
Anti-Tcr g/d [1:100]	Invitrogen	Cat#13-5711-82
Anti-Granzyme A [1:100]	ABclonal	Cat#A6231
Anti-Cd8a [1:100]	Abcam	Cat#ab316778
Anti-Cytochrome C [1:2000]	Cell Signaling Technology	Cat#11940
Anti- α -Tublin [1:2000]	Proteintech	Cat#66031-1-Ig
HRP-conjugated Affinipure Goat Anti- Mouse IgG(H+L) [1:2000]	Proteintech	Cat#SA00001-1
HRP-conjugated Affinipure Goat Anti- Rabbit IgG(H+L) [1:2000]	Proteintech	Cat#SA00001-2
Anti-GZMB [1:100]	Santa Cruz	Cat#sc-8022
Anti-Perforin [1:100]	Cell Signaling Technology	Cat#44865
Anti-CTLA-4 [1:100]	Proteintech	Cat#98147-1-RR

PE Anti-Mouse TIM-3 [1:100]	BioLegend	Cat#165403
Ghost Dye™ Red 780 [1:1000]	Tonbo Biosciences	Cat#13-0865
PE-Cyanine7 Anti-Mouse CD45 [1:500]	Tonbo Biosciences	Cat#60-0451
APC Anti-Mouse CD3 (17A2) [1:500]	Tonbo Biosciences	Cat#20-0032
PE Anti-Mouse Ly-6G (1A8) [1:100]	Tonbo Biosciences	Cat#50-1276-U025
Brilliant Violet 421™ Anti-Mouse TCR g/d [1:100]	BioLegend	Cat#118119
FITC Anti-Mouse CD8a [1:100]	Tonbo Biosciences	Cat#35-0081
PE Donkey anti-rabbit [1:200]	BioLegend	Cat#406421
PE Goat anti-mouse [1:200]	BioLegend	Cat#405307
Brilliant Violet 510™ Donkey anti-rabbit [1:200]	BioLegend	Cat#406419
Brilliant Violet 510™ Goat anti-mouse [1:200]	BioLegend	Cat#405331
Control IgG [see Methods]	BioXcell	Cat#BE0088, BE0089, BE0090, BE0091
Anti-PD-1 [see Methods]	BioXcell	Cat#BE0146
Anti-LAG-3 [see Methods]	BioXcell	Cat#BE0174
Anti-Tcr g/d [see Methods]	BioXcell	Cat#BE0070
Anti-Cd8a [see Methods]	BioXcell	Cat#BE0061
Bacterial and virus strains		
DH5a competent cells	Thermo Fisher Scientific	Cat#18258012
Chemicals, peptides, and recombinant proteins		

4-nitroquinoline N-oxide	Sigma-Aldrich	Cat#N8141
Tamoxifen	Sigma-Aldrich	Cat#T5648
Dimethyl sulfoxide (DMSO)	TargetMol	Cat#T0341
Lipofectamine® 2000 Transfection Reagent	Invitrogen	Cat#11668019
Polybrene (hexadimethrine bromide)	YEASEN	Cat#40804ES76
Puromycin Dihydrochloride	Beyotime	Cat#ST551
Fetal Bovine Serum	GIBCO	Cat#10270-106
Penicillin/streptomycin	GIBCO	Cat#15140-122
Sodium Citrate Antigen Retrieval Solution, 100×	Bioss	Cat#C02-02002
5% BSA Blocking Buffer	Solarbio	Cat#SW3015
RIPA	TIANYA BIO	Cat#P1024
Glutaraldehyde	Alfa Aesar	Cat#A17876
Osmium acid	Ted Pella	Cat#18456
Resin	Ted Pella	Cat#GP18010
Uranyl acetate	EMS	Cat#22400
Lead citrate	Ted Pella	Cat#19314
ACK lysing buffer	Thermo Fisher Scientific	Cat#A1049201
ANXA1 protein	MCE	Cat#HY-P7512
Anxa1 protein	MCE	Cat#HY-P72078
DMEM/F12	GIBCO	Cat#C11330500BT
cOmplete™, EDTA-free Protease Inhibitor Cocktail	Roche	Cat#4693132001
TRYPsin 0.25% EDTA	GIBCO	Cat#25200072
Triton™ X-100	Sigma-Aldrich	Cat#X-100
DAPI	Solarbio	Cat#C0065
Tissue-Tek OCT Compound	Sakura	Cat#25608-930

Fixation/permeabilization solution	BD	Cat#554714
MitoTracker Red	ThermoFisher	Cat#A66443
Hoechst 33342	Beyotime	Cat#R0305S-6
RPMI 1640	GIBCO	Cat#11875500BT
Lipopolysaccharides	MCE	Cat#HY-D1056
Critical commercial assays		
Hematoxylin-Eosin (HE) Stain Kit	Solarbio	Cat#G1120
Dako REAL™ EnVision™ Detection System, Peroxidase/DAB+, Rabbit/Mouse	Dako	Cat#K5007
Mouse Tumor Dissociation Kit	Macs Miltenyi Biotec	Cat#130-096-730
Hieff NGS® Ultima Dual-mode mRNA Library Prep Kit for Illumina®	Yeasten	Cat#12308ES96
Cell Mitochondria Isolation Kit	Beyotime Biotechnology	Cat#C3601
Renilla-Firefly Luciferase Dual Assay Kit	MCE	Cat#HY-K1013
Modified Bradford Protein Assay Kit	Sangon Biotech	Cat#C503041
Pierce™ BCA Protein Assay Kit	ThermoFisher	Cat#23227
Cxcl9 ELISA Kit	Elabscience	Cat#E-EL-M3077
Cxcl10 ELISA Kit	Elabscience	Cat#E-EL-M0021
Cxcl12 ELISA Kit	Elabscience	Cat#E-EL-M3046
Deposited data		
Raw data	This paper	CRA018502
Experimental models: Cell lines		

HL60 cells	NCACC	TCHu 23
Moc1 cells	KERAFAST, INC.	EWL001-FP
293T cells	ATCC	CRL-3216
Experimental models:		
Mouse: <i>K14^{CreER}</i>	Jackson Laboratory	Strain ID: 005107
Mouse: <i>Sox9^{CreER}</i>	Jackson Laboratory	Strain ID: 018829
Mouse: <i>K14^{DreER}</i>	Shanghai Model Organisms	Strain ID: NM-KI-190125
Mouse: <i>R26-Ai66-DTR</i>	Shanghai Model Organisms	Strain ID: NM-KI-190086
Mouse: <i>R26-Ai66-tdTomato</i>		PMID: 30773487
Mouse: <i>Lyz^{CreER}</i>	GemPharmatech	Strain ID: T052789
Mouse: <i>Anxa1^{fllox}</i>	GemPharmatech	Strain ID: T016067
Mouse: <i>Fpr1^{fllox}</i>	GemPharmatech	Strain ID: T052005
Oligonucleotides		
shFPR1-1		5'- GCTGTCAGTTATGGGC TTATT-3'
shFPR1-2		5'- CGTCTTTACCATAGTG GACAT-3'
Recombinant DNA		
pZX001-Anxa1-promoter-WT	This paper	N/A
pZX001-Anxa1-promoter-MUT	This paper	N/A
Software and algorithms		
ImageJ version 1.52a	NIH	https://imagej.net/ImageJ
GraphPad Prism version 8.0.2	GraphPad Software	https://www.graphpad.com
R version 4.0.0	NA	https://www.r-project.org/

CellRanger version 4.0.0	10x Genomics	https://www.10xgenomics.com/support/software/cell-ranger/latest
CellPhoneDB version 2.1.7	NA	https://www.cellphonedb.org
CellChat version 1.1.3	NA	http://www.cellchat.org/
CytoTRACE	NA	https://cytotrace.stanford.edu/
Equipments		
Ultramicrotome	Leica	UC-7
Transmission electron microscope	Japan Electron Optics Laboratory Co., Ltd.	JEM-1400
Bioanalyzer	Agilent	2100
Fluorometer	Invitrogen	Qubit 3.0
High-throughput sequencing platform	MGI	DNBSEQ-T7
CytoFLEX	Beckman Coulter	NA
FACSAria Fusion	BD	NA
Super Resolution Microscopes	Nikon	N-SIM S

Supplementary Table 3 related to Figure 3, Top 20 differential genes of every immune cell cluster									
Treg	$\gamma\delta$ T	Neu1	Macr o1	Mono	Neu2	Cd8	Macr o2	DC	NK
Foxp3	Il17a	Retnlg	C1qc	Tgfb1	Cd24a	Cd8b1	H2-Eb11	Hapln3	Bmp2
Ikzf2	Il17f	S100a9	C1qa	Fcgr2b1	Acsl1	Cd8a	H2-Aa1	Epcam	Calca
Tnfrsf4	Trdc	Fpr1	C1qb	Fn11	Cd300a	Nkg71	H2-Ab11	Cd207	Ccdc184
Ctla4	Blk	S100a8	Ms4a7	Msr1	Tnf	Klrd1	Cd741	Fads3	Il1r11
Izumo1r	Cd163l1	Clec4d	Mafb	F10	Clec5a	Ctsw	C1qb1	H2-DMb2	Klf5
Tnfrsf18	Tcrg-C1	Trem1	Apoe	Ms4a6c1	Plin2	Ms4a4b1	C1qa1	Cldn1	Ehd3
Tnfrsf9	Ramp1	Sell	Lgmn	Mafb1	Icam1	Dapk2	C1qc1	Fam189a2	Plekha8
Cd2	Tmem176a	Lcn2	C3ar1	Cxcl162	Bri3	Cd160	Zmynd151	Card9	Hlf
Cd5	Cxcr6	Slfn4	Trem2	F13a1	Cdkn1a	Klrk11	Cst3	Rgs12	Apbb2
Icos	Actn2	Sgms2	Csf1r	Cybb1	Atp6v1g1	Ccl5	Tmsb4x	Cracr2b	4932438H23Rik
Cldnd1	Il1r1	Asprv1	Aif1	Plac8	Rnf130	Gzma	Aif11	Ptgs1	Pxdc1
Ets1	Tmem176b1	Lrg1	Rab7b	Flrt3	Retreg1	Ifng1	Apoe1	Mfge8	Rnf128
Odc1	Emb	Stfa2l1	Cxcl16	Ms4a4c	Atp6ap2	Fasl	Ctsh1	Ciita	Bhlhb9
H2-K1	Trdv4	Wfdc21	Cebpa	Mmp141	Vasp	Klrc1	Ctss1	Cdh1	Gata3
Shisa5	Cd3g	Ccr1	Tgfb1	Chil31	Txnip	Serpinb6b	Atox1	Alox5	Jag1
Ctla2a	Ckb	Rnf149	Lair1	Lrp11	Adprh	Lck1	Pfn1	Epha2	Ipmk
Gzmb	Ece1	AC110211.1	Dab2	Ms4a6d2	Tgfbr1	Tmsb101	Cxcl161	Gpr141	Scai
AW112010	Avpi1	Ets2	Ms4a6c	Ifitm31	Smndc1	Gramd3	Cd632	Gsg1	Ptpn13
Cytip	Abi3bp	Srgn	H2-DMb1	H2-Aa2	Tctex1d2	Ctla2a1	H2-DMa1	Hpgds1	Rab40c
Fam46a	Rgs1	Msrb1	Slamf9	Ctsh2	Irak2	Cd282	Ftl13	Cbfa2t3	Raph1