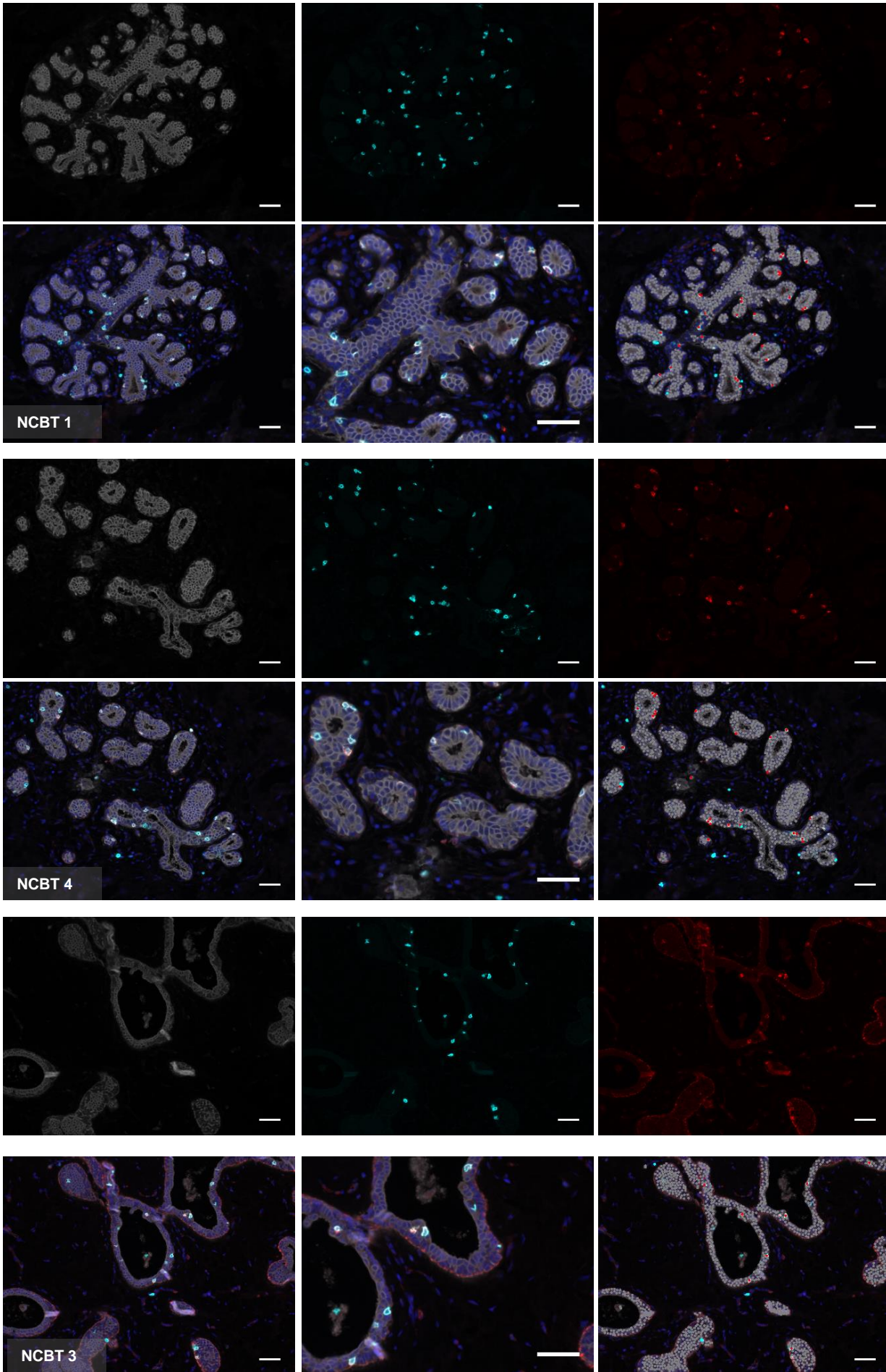


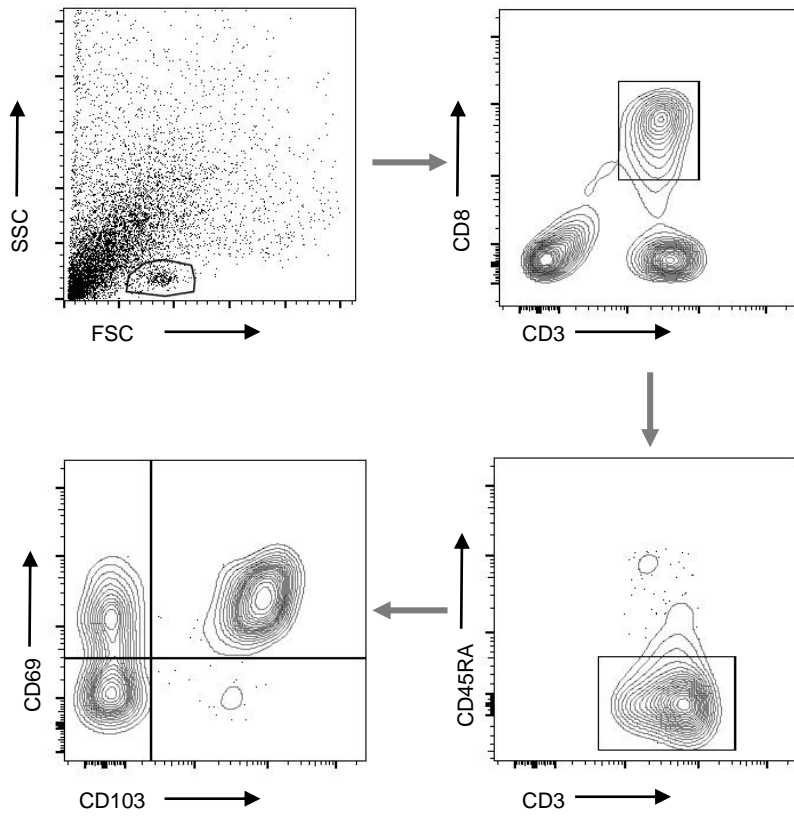
Supplemental Figure 1

Merge: DAPI CD8 CD103 CK

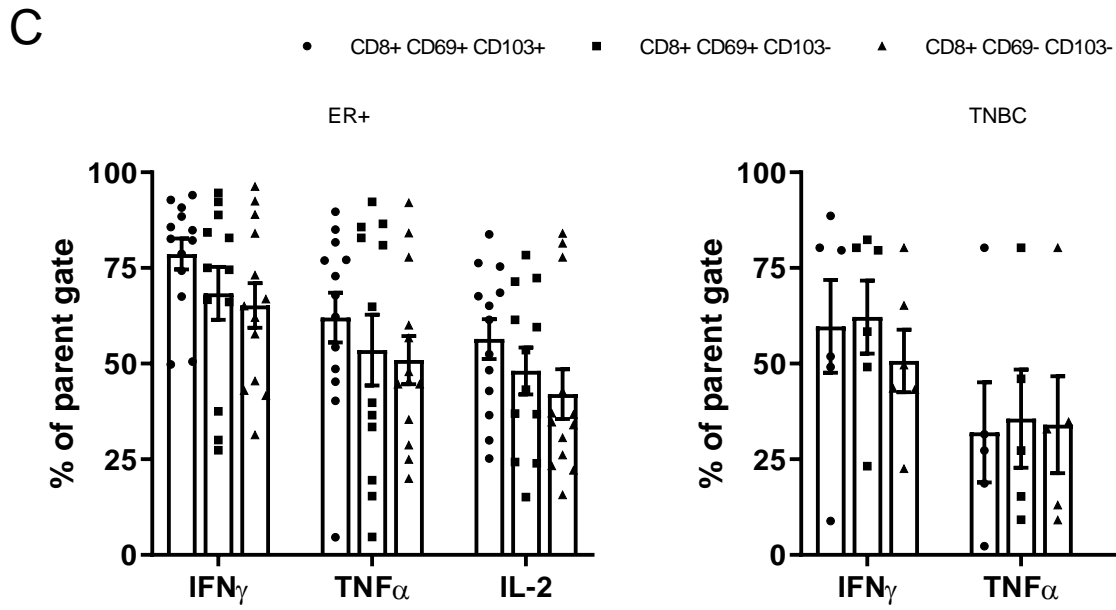
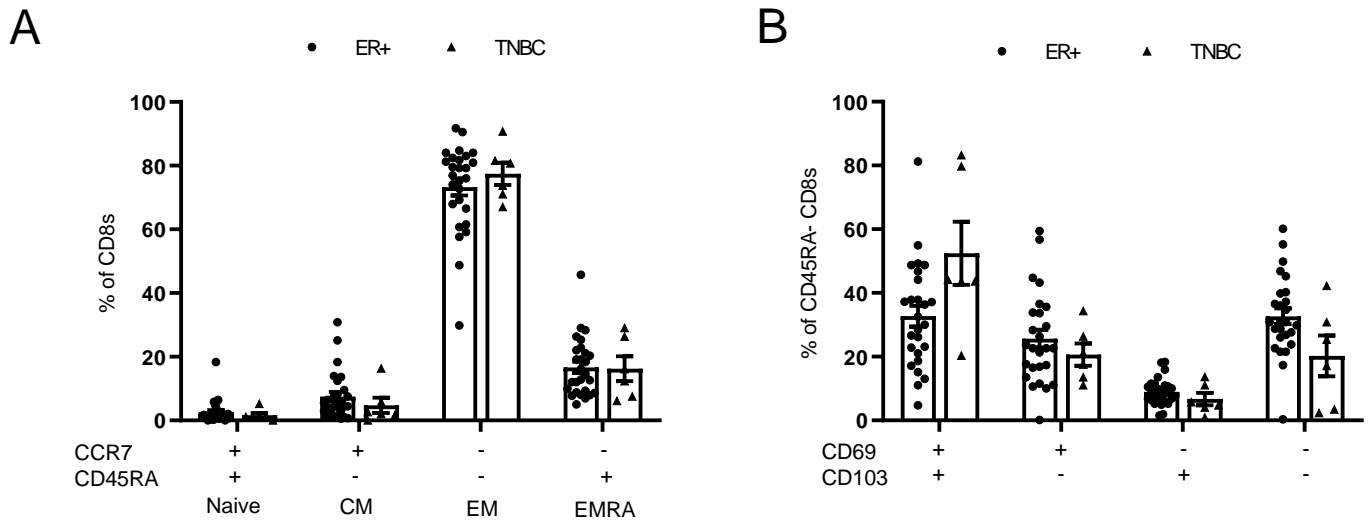


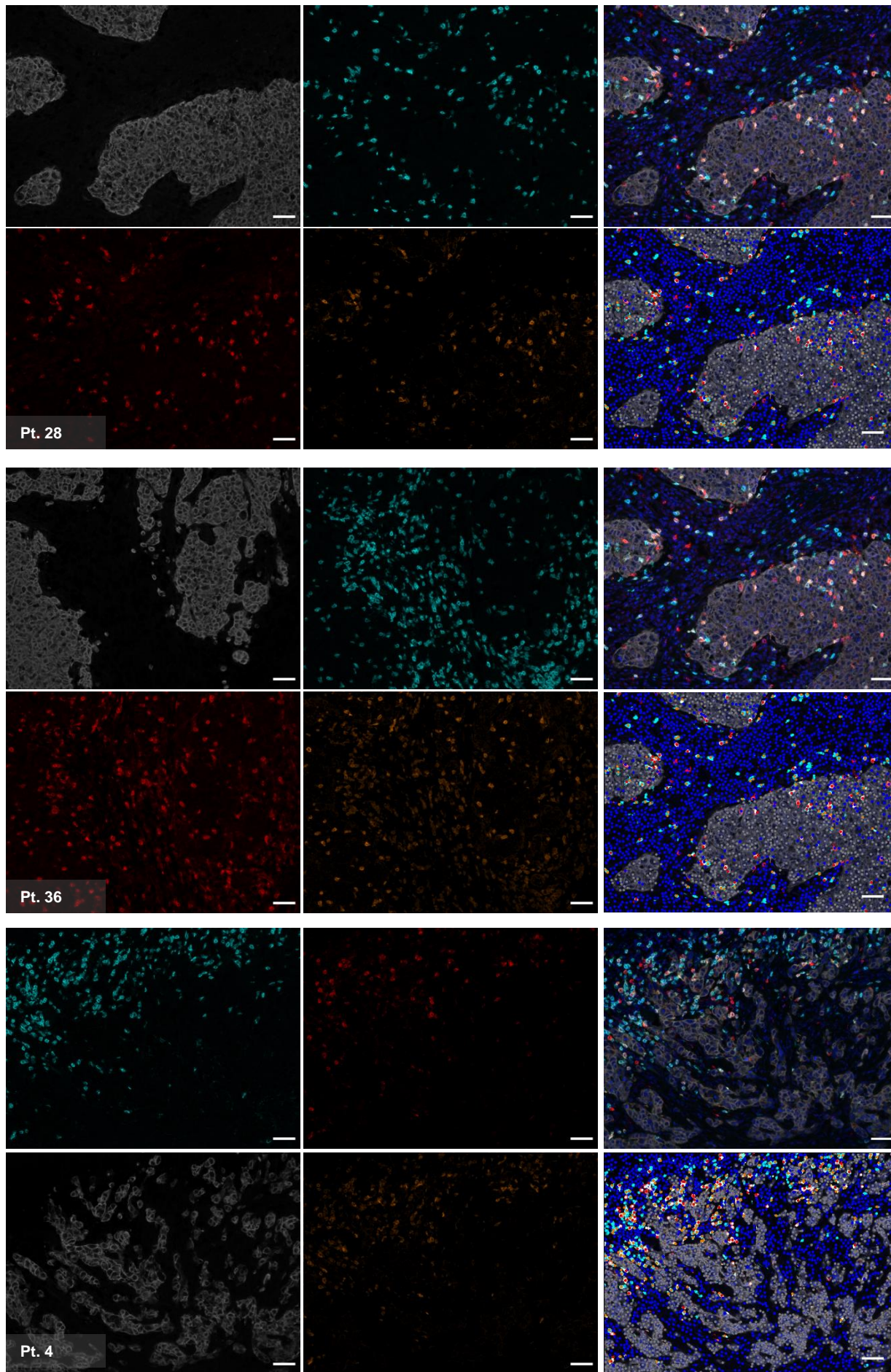
Phenotype: ● CD103+ CD8+ ● CD103- CD8+ ● CK+

Supplemental Figure 2

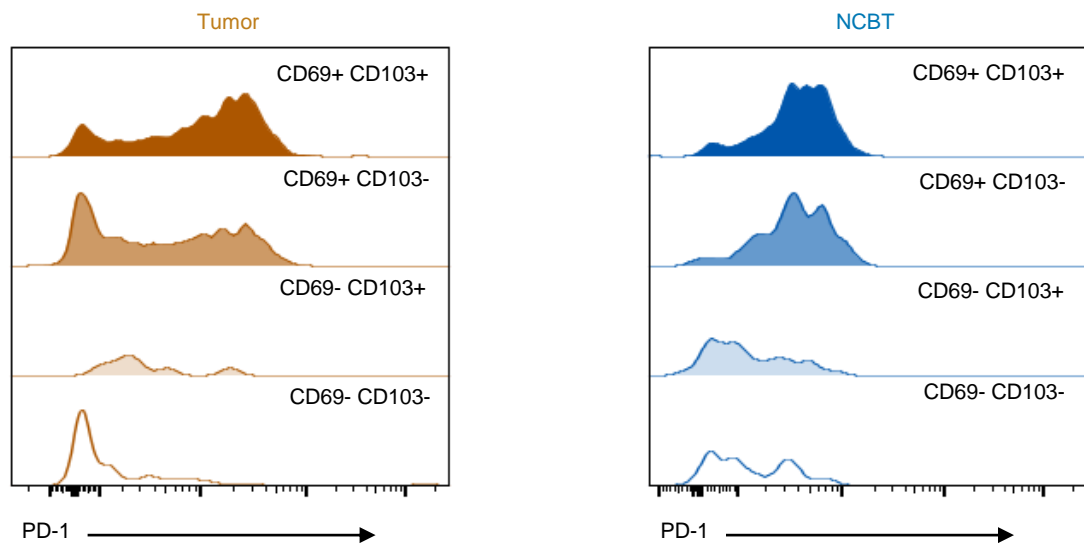
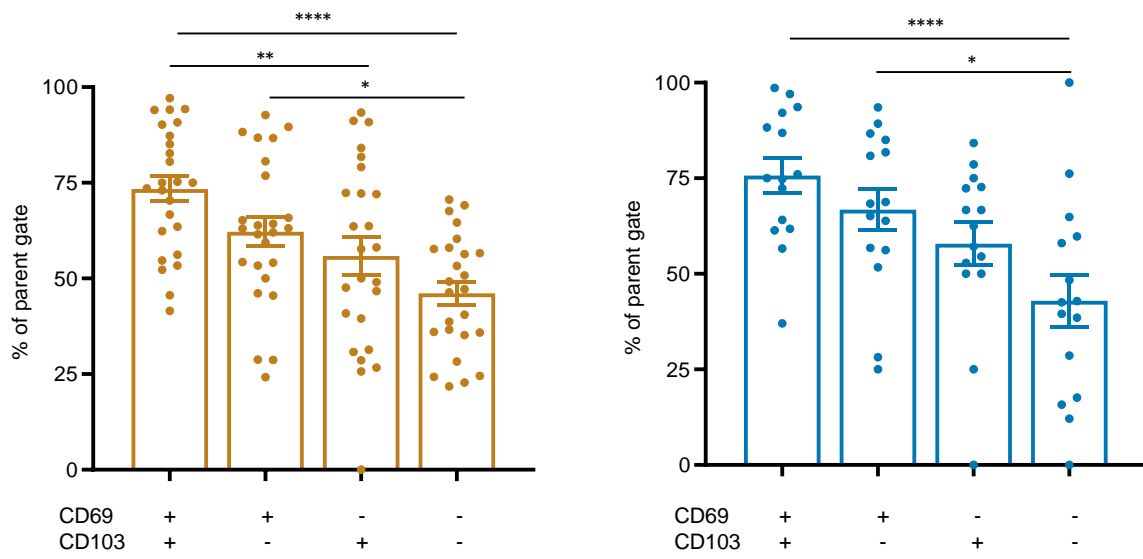


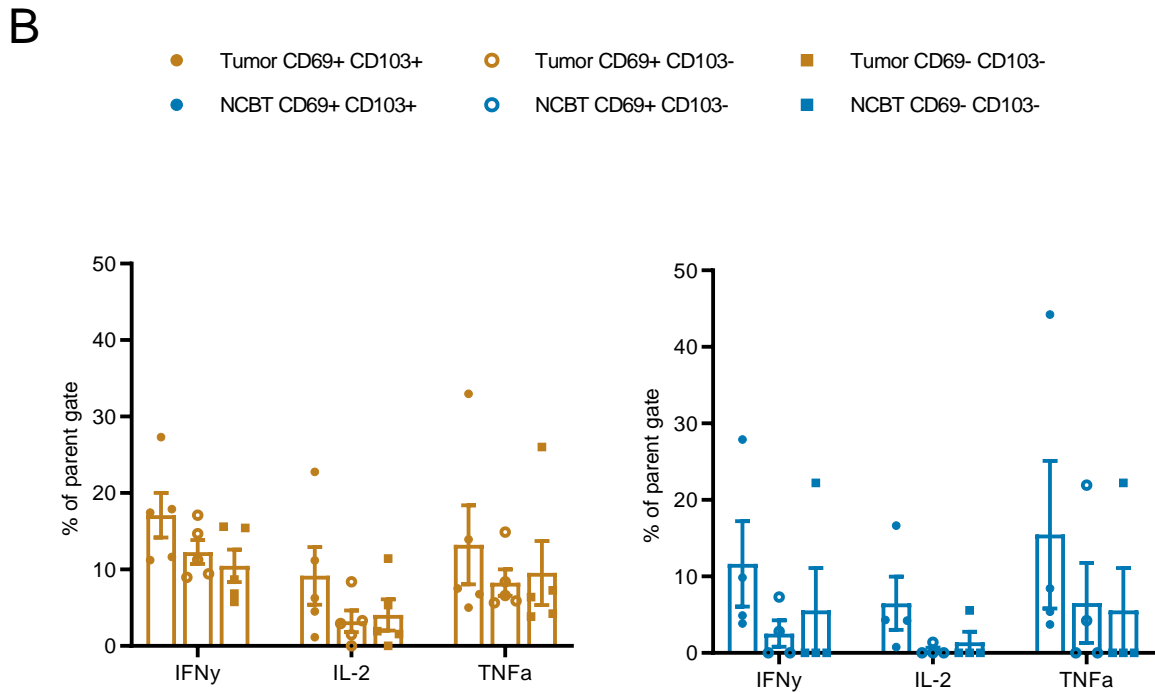
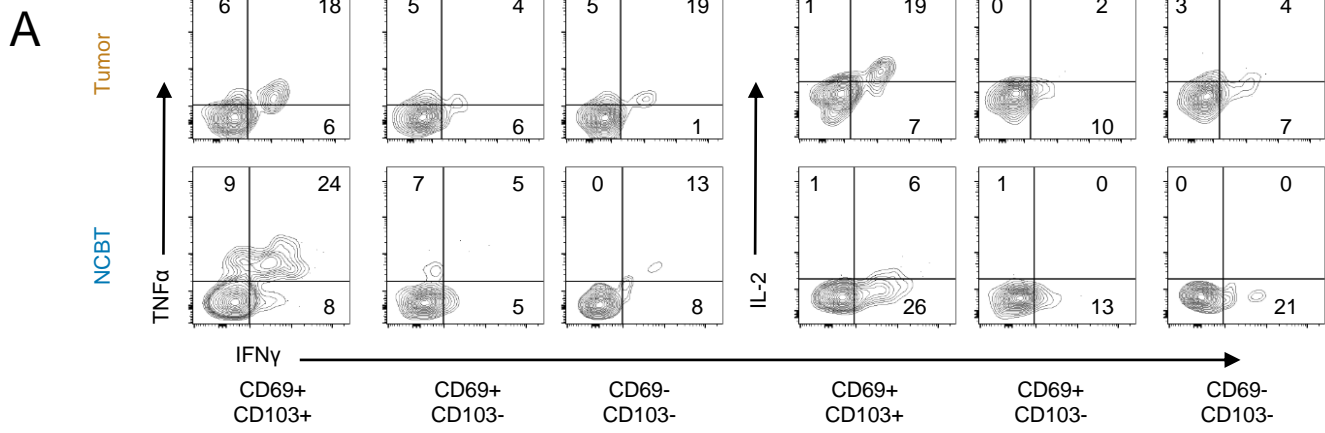
Supplemental Figure 3





Phenotype: ● CD69+ CD103+ CD8+ ● CD69+ CD103- CD8+ ● CD69- CD103- CD8+ ● CK+

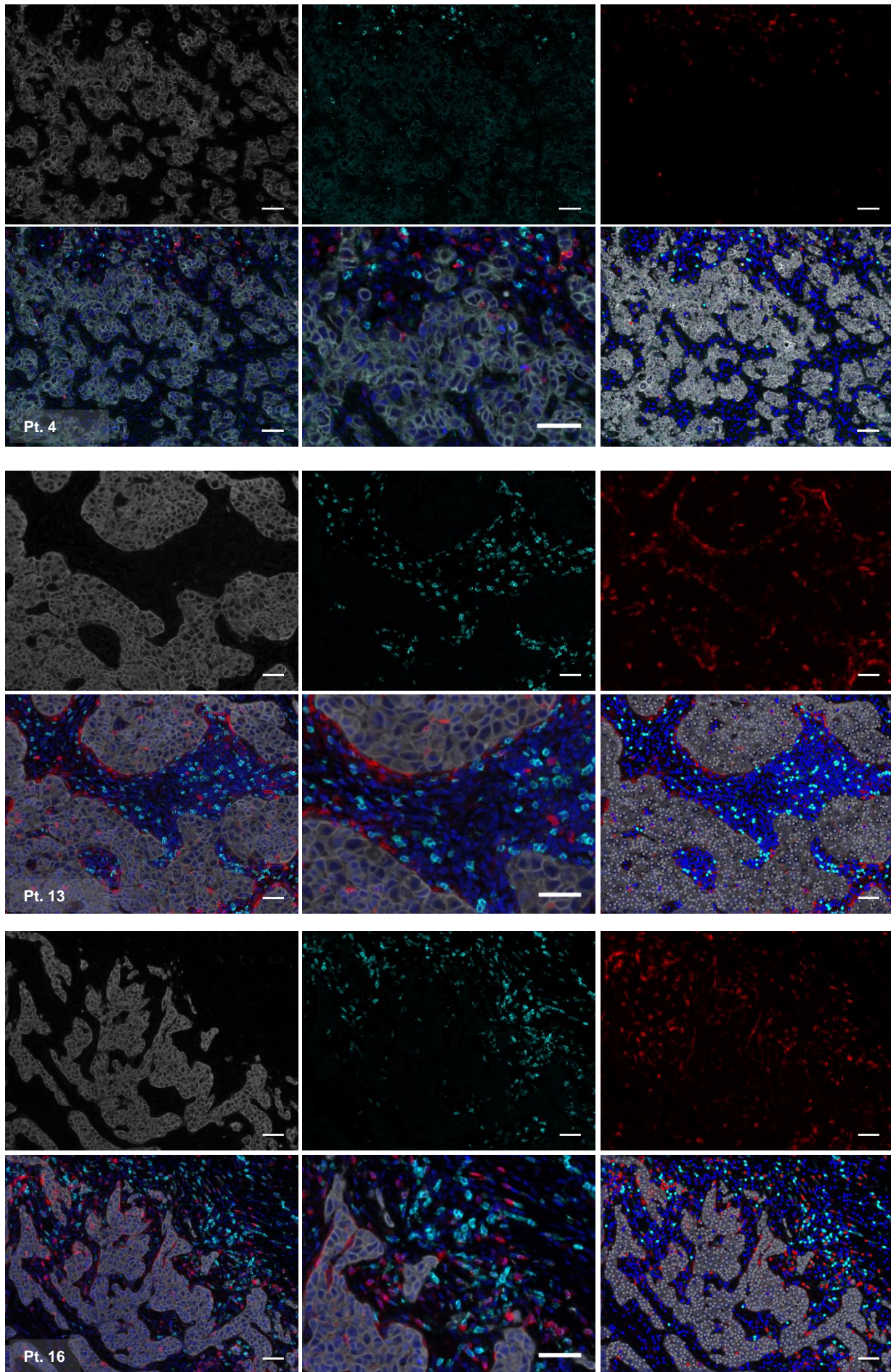
A**B**



Supplemental Figure 7

Merge: DAPI CD8 CD103 CK

Relapse

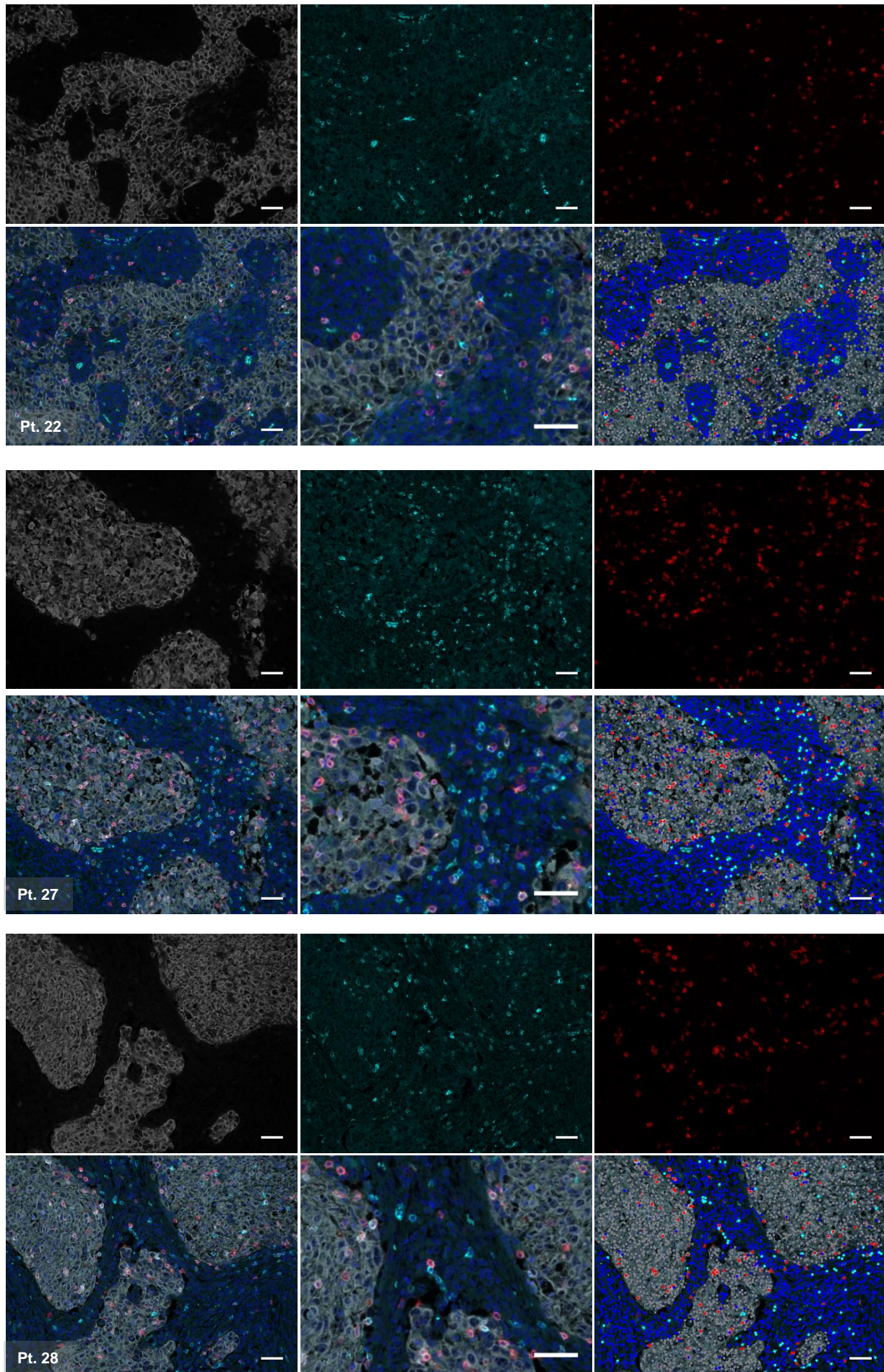


Phenotype: ● CD103+ CD8+ ● CD103- CD8+ ● CK+

Supplemental Figure 8

Merge: DAPI CD8 CD103 CK

Relapse-free



Phenotype: ● CD103+ CD8+ ● CD103- CD8+ ● CK+

Supplemental Figure 9

Prognostic Tumor Tissue Breast Cancer Patient Characteristics		
	<u>Relapse</u> n=12	<u>Relapse-free</u> n=13
Age (years)		
Mean, Median (Range)	56, 54 (35-79)	53, 54 (27-67)
Previously Treated	n=0	n=0
Pathological Subtype		
ER- PR- HER2- (TNBC)	n=12	n=13
Overall Stage		
I	n=6	n=1
II	n=5	n=10
III	n=1	n=2
Pathologic Tumor Stage		
T1	n=7	n=2
T2	n=4	n=10
T3	n=1	n=1
Tumor Grade		
2	n=0	n=2
3	n=13	n=11
Relapse Free Survival (months)		
Mean, Median (Range)	18, 17 (3-38)	109, 109 (62-145)

Supplemental Table 1. Clinical characteristics of triple negative breast cancer patient cohorts used for retrospective analysis.

Tumor Tissue Breast Cancer Patient Characteristics		
Age (years)		
Mean, Median (Range)	56, 55 (31-86)	
Pathological Subtype		
ER+	n=36	
ER- PR- HER2-	n=6	
Overall Stage	ER+	ER-
I	n=11	n=1
II	n=16	n=3
III	n=7	n=2
Unknown	n=2	
Pathologic Tumor Stage	ER+	ER-
T1	n=14	n=1
T2	n=15	n=4
T3	n=5	n=0
T4	n=1	n=1
Local Recurrence	n=1	
Tumor Grade	ER+	ER-
1	n=3	n=0
2	n=20	n=1
3	n=12	n=5
Unknown	n=1	

Supplemental Table 2. Clinical characteristics of breast cancer patient tumor samples for fresh tissue studies.

Non-cancerous Tissue Patient Characteristics	
Age (years)	
Mean, Median (Range)	56, 53 (41-84)
Surgical Subtype	
Adjacent tissue to tumor*	n=15
Contralateral breast tissue*	n=6
Prophylactic breast tissue**	n=3

Supplemental Table 3. Clinical characteristics of non-cancerous breast samples for fresh tissue studies. *In three patients, both adjacent non-cancerous breast tissue and contralateral non-cancerous breast tissues were analyzed. **Prophylactic mastectomies were due to either BRCA1 or CHEK2 mutations.

Flow Cytometry

Antibody	Clone	Fluorophore	Company
CCR7	G043H7	BV421	Biologend
CD103	BER-ACT8	PE-Cy7	Biologend
CD3	UCHT1	BUV496	BD Biosciences
CD45RA	HI100	APC-Cy7	Biologend
CD69	FN50	BV605	Biologend
CD8	SK1	BUV805	BD Biosciences
IFN γ	B27	AF700	BD Biosciences
IL-2	MQ1-17H12	FITC	BD Biosciences
PD-1	EH12.1	PE	BD Biosciences
TNF α	MAb11	BV421	Biologend

Immunohistochemistry

Antibody	Clone	pH	Company
CD8	SP16	6	BioCare
CD103	EPR4166(2)	9	AbCam
CD69	CH11	9	Leica
pan-CK	AE1/AE3	6	Agilent

Real Time PCR Primers

Gene	Forward	Reverse	Company
Actin	ACC TTC TAC AAT GAG CTG CG	CCT GGA TAG CAA CGT ACA TGG	IDT
ITGAE	CGC TTT CAA TGT GGA TGT GG	CTG GTG TCC TCT TGG TTC TG	IDT
S1PR1	GGG AAG GGA GTA TGT TTG TGG	AGG AAG AGG CGG AAG TTA TTG	IDT
ITGA1	AAT TCT CCA GAC GCT CAG TG	CTC CTT CTC TGT TCC CAT GTA C	IDT
CD244	TCT AAG CGC ACT GTT CCT TG	CCT GCT CGT GAT TTC TCC TG	IDT
XCL1	TAC ATT GTG GAA GGT GTA GG	TGG TGT AGG TCT TGA TTC TG	Sigma Aldrich

Supplemental Table 4. Reagents used for flow cytometry, immunohistochemistry and Real Time PCR.