

**Supplemental Table 1.** Detailed list of the fluorophore-conjugated antibodies used in flow cytometry experiments.

Marker	Fluorophore	Clone	Company
CD56	BV421	HCD56	BioLegend
CD56	APC	HCD56	BioLegend
CD56	BUV805	NCAM16.2	BD
CD16	BUV563	3G8	BD
CD33	PerCP/Cyanine5.5	P67.6	BioLegend
CD33	BV785	WM53	BioLegend
His-tag	APC	J095G46	BioLegend
His-tag	PE	J095G46	BioLegend
CD158b (KIR2DL2/2DL3/2DS2)	BUV661	CH-L	BD
CD158e1 (KIR3DL1)	BV480	DX9	BD
CD158 (KIR2DL1/S1/S3/S5)	APC/Fire™ 750	HP-MA4	BioLegend
NKG2A (CD159a)	UV737	131411	BD
NKp30 (CD337, NCR3)	BB700	p30-15	BD
NKp46 (CD335, NCR1)	BB515	9E2/NKp46	BD
CD57	BV605	QA17A04	BioLegend
CD62L	Red 718	SK11	BD
PVRIG	Alexa Fluor 405	2334A	R&D Systems
TIGIT	BUV395	741182	BD
CD96	BV711	6F9	BD
NKG2D (CD314)	PE-Cy7	1D11	BioLegend
DNAM-1 (CD226)	PE/Dazzle™ 594	11A8	BioLegend
TRAIL (CD253)	BV711	RIK-2	BD
FAS-L (CD178)	BV421	NOK-1	BioLegend
TIM-3 (HAVCR2)	BB700	7D3	BD
LAG3 (CD223)	BV650	11C3C65	BioLegend
PD-1 (CD279)	BB515	EH12.1	BD

NKG2C (CD159c)	BV605	134591	BD
2B4 (CD244)	PE-CF594	2-69	BD
KLRG1 (MAFA)	PE-Cy7	2F1/KLRG1	BioLegend
CD69	BUV805	FN50	BD
LFA-1 (CD11a)	Red 718	G-25.2	BD
CD161	BUV395	HP-3G10	BD
TRAIL-R1 (CD261)	BV421	S35-934	BD
FAS (CD95)	BB515	DX2	BD
MICA/MICB (PERB11)	PE-Cy7	6D4	BioLegend
ULBP-1	APC	170818	R&D Systems
CD48	PE-CF594	TÜ145	BD
CD112 (Nectin-2)	PerCP/Cyanine5.5	TX31	BioLegend
CD155 (PVR)	V711	TX24	BD
galectin-9	PE	9M1-3	BD
PD-L1 (CD274)	UV395	MIH1	BD
CD19	PerCP/Cyanine5.5	SJ25C1	BioLegend

**Supplemental Table 2.** Genes included in the clusters 1-4 shown in Fig. 5D (listed from top to bottom of the cluster).

Cluster 1	Cluster 2	Cluster 3	Cluster 4
RAD54B	CD9	DTL	CTNNA1
MSH5	APOD	CHEK2	ANKRD35
EHHADH	SMOX	CDC45	EFCAB11
SIGLEC7	GPA33	TROAP	RCCD1
HCG27	EGR2	CDKN2C	CDKN2B-AS1
B4GALT6	PAQR4	CCNE1	FAM72B
ZNF90	E2F1	PHF19	C4orf33
SAPCD1	ORC1	MAD2L1	ANXA4
BLVRA	CDT1	WDR76	CD86
MCOLN2	TONSL	IKZF4	SIM1
NEDD4	HIST1H3G	LRP8	TMPO
ACYP1	POLD1	LIN9	FAM72D
ACOT9	HIST1H1B	PTTG1	FBXO43
SORT1	HIST1H2BM	KIF23	CMPK2
CDC42BPA	HAUS8	CCDC150	FN1
KIF18A	HIST1H2AL	EPB41L2	CRTAM
SAPCD1	CENPM	HIST1H1D	KIAA1524
STAP1	NHS	ENTPD1	KPNA2
ANO6	CD84	PHTF2	SGOL2
DBF4	CCNF	RSAD2	CCDC18
LOC100507002	TP73	GEM	ERI2
CENPK	TNC	CASC5	BRCA2
KDELC2	TIAM1	NUF2	CDH17
GBP4	PTPRG	UBE2T	MELK
GGCT	GOLGA8G	FANCI	CDC7
SIRPG	ADGRL2	RAD51AP1	RRM2
BARD1	ZFH3	NUSAP1	HJURP
GZMA	WNT7B	POLQ	DIAPH3
DGKA	DRAXIN	NCAPH	SHCBP1
FBXO44	GOLGA8DP	CLSPN	KNTC1
CENPQ	BCL2L11	UBE2C	E2F8
ARL6IP6	GOLGA8F	STMN1	KIF20A
NEIL3	FRMD5	FOXM1	DEPDC1B
ELOVL6	ACVR1B	SKA1	TMPO
CENPE	CHRM3-AS2	TYMS	TACC3
CCNE2	ADAM19	C2orf48	DDIAS
DPP4	NCR2	CDC25C	KIF15
HTATSF1	VWA2	SPC25	TTK

FBXO5	DYSF	GIN52	E2F7
YEATS4	RGS16	LOC81691	CEP55
SMC4	FAM221A	MAL	NEK2
STARD4	CCL3L3	EME1	ACAT2
CCNG1	MIR210HG	BRCA1	OAS3
KIR2DL4	CCL4	XRCC2	INCENP
TNS4	CCL3	SGOL1	
MYBL1	HIST2H2AB	CCDC34	
GPR171	HAPLN3	PTGIS	
KIF20B	TNFSF12	PTPN3	
SYCP2	OMD	ASF1B	
DCK	PSMC3IP	PKMYT1	
NTRK2	HACD1	MYBL2	
DMRT2	SDC4	E2F2	
NEDD9	DTYMK	RAD54L	
CEP152	LRRC20	EDA2R	
ARHGAP11A	SMCO4	LOC100506985	
PDGFRB	PRADC1	RCAN3	
SOCS2	LTA	HIST1H3B	
ARNTL2	FAAP24	MCM4	
ERI1	FANCC	SPAG5	
IFI44	CENPH	GIN53	
EZH2	C17orf53	ORC6	
GBP1	TK1	SAPCD2	
OPHN1	LOC642846	CKS1B	
LOC100288637	UNQ6494	TUBA1B	
FBXO2	TNFRSF8	TUBB	
AFAP1L2	C16orf59	HIST1H2BH	
LTB	TRAIP	RMI2	
PIF1	FBXO6	CCNB1	
LAIR2	FANCG	EXO1	
EPDR1	DMD	CDC6	
HOXB6	IFI27L1	BUB1B	
CD80	AURKB	CENPI	
NUGGC	STXBP5L	GTSE1	
RNASE4	DMC1	TICRR	
CHEK1	OIP5	IQGAP3	
CDKN3	MCOLN3	DLGAP5	
CREM	APOBEC3B	CIT	
KIF11	KIF4A	AURKA	
PLK4	KIF24	BCL2	

RBBP8	TMEM106C	ASPM	
HMGB2	NRM	STIL	
DNAJC9	CENPN	PRIM1	
FAM72C	CENPP	CDK1	
PRTFDC1	CDK2	TPX2	
LEF1	UBASH3B	ANLN	
TNFSF8		PRR11	
FAS		CDCA2	
ATAD2		PRC1	
CENPU		MKI67	
RRM1		ESCO2	
TCF19		TOP2A	
BRIP1		KIF14	
DEPDC1		HMMR	
CKAP2L		CCNB2	
NCAPG		CDCA3	
ECT2		CDCA8	
NDC80		KIF18B	
ZNF367		MCM10	
RGS6		CDC20	
TJP1		KIFC1	
ITGA2		TIMELESS	
CEACAM1		KIF2C	
HOXB7		KIAA0101	
MB21D2		ZWINT	
SLAMF1		WDR62	
LOC100294145		CDCA5	
FANCD2		PLK1	
RNF157		RAD51	
C1orf112		CDC25A	
MASTL		DSN1	
MBOAT2		SUV39H1	
POLE2		POC1A	
C18orf54		CBR3	
LOC399815		FDXR	
ZNF730		LIG1	
TEX30		BIRC5	
USP18		ESPL1	
HMSD		UHRF1	
LINC00892		CENPW	
SERPINE2		PCNA	

ACTA2		CENPA	
TSPAN5		WDHD1	
B4GALNT1		TRIP13	
LINC00504		DHFR	
NDFIP2		FAM111B	
NCAM1		SKA3	
		SMC2	
		CCNA2	
		GGH	
		STX3	
		RACGAP1	
		DSCC1	
		RBL1	
		ANXA9	
		APOL4	
		C21orf58	
		GIN54	
		MCM2	
		HIRIP3	
		MCM3	
		MTFR2	
		GIN51	
		NCAPG2	
		CHAF1B	
		RPL39L	
		NPC2	
		IFNLR1	
		OAS1	
		CKS2	
		GMNN	
		KDEL1C	
		ARHGAP11B	