

Supplementary Table 1. GSEA analysis of 4 CD8<sup>+</sup> subsets

Signaling pathway (KLRG1 <sup>+</sup> SP)	Enrichment score	P value	Signaling pathway (DN)	Enrichment score	P value
E2F_TARGETS	0.748	0.0001	E2F_TARGETS	-0.806	0.0001
TNFA_SIGNALING_VIA_NFKB	-0.774	0.0001	G2M_CHECKPOINT	-0.797	0.0008
HYPOXIA	-0.664	0.0007			
G2M_CHECKPOINT	0.734	0.0008			
APICAL_JUNCTION	0.672	0.0011			
P53_PATHWAY	-0.718	0.0019			
UV_RESPONSE_UP	-0.769	0.0031			
COMPLEMENT	0.609	0.0058			
KRAS_SIGNALING_UP	-0.756	0.0064			
OXIDATIVE_PHOSPHORYLATION	0.477	0.0100			
INFLAMMATORY_RESPONSE	-0.649	0.0164			
Signaling pathway (CD127 <sup>+</sup> SP)	Enrichment score	P value	Signaling pathway (DP)	Enrichment score	P value
COMPLEMENT	-0.741	0.0001	E2F_TARGETS	0.794	0.0001
E2F_TARGETS	-0.728	0.0002	G2M_CHECKPOINT	0.814	0.0001
G2M_CHECKPOINT	-0.758	0.0002	TNFA_SIGNALING_VIA_NFKB	-0.799	0.0002
P53_PATHWAY	0.724	0.0003	UV_RESPONSE_UP	-0.781	0.0007
TNFA_SIGNALING_VIA_NFKB	0.631	0.0003	P53_PATHWAY	-0.647	0.0049
UV_RESPONSE_UP	0.665	0.0070	MYC_TARGETS_V1	0.472	0.0056
HYPOXIA	0.494	0.0081	OXIDATIVE_PHOSPHORYLATION	0.487	0.0085
PI3K_AKT_MTOR_SIGNALING	-0.607	0.0128	HYPOXIA	-0.543	0.0135
GLYCOSIS	-0.616	0.0146			
MTORC1_SIGNALING	-0.536	0.0181			
OXIDATIVE_PHOSPHORYLATION	-0.451	0.0206			
INFLAMMATORY_RESPONSE	0.509	0.0319			

INTERFERON_GAMMA_RESPONSE	-0.465	0.0342			
APICAL_JUNCTION	-0.545	0.0365			
KRAS_SIGNALING_UP	0.579	0.0378			
FATTY_ACID_METABOLISM	-0.572	0.0846			