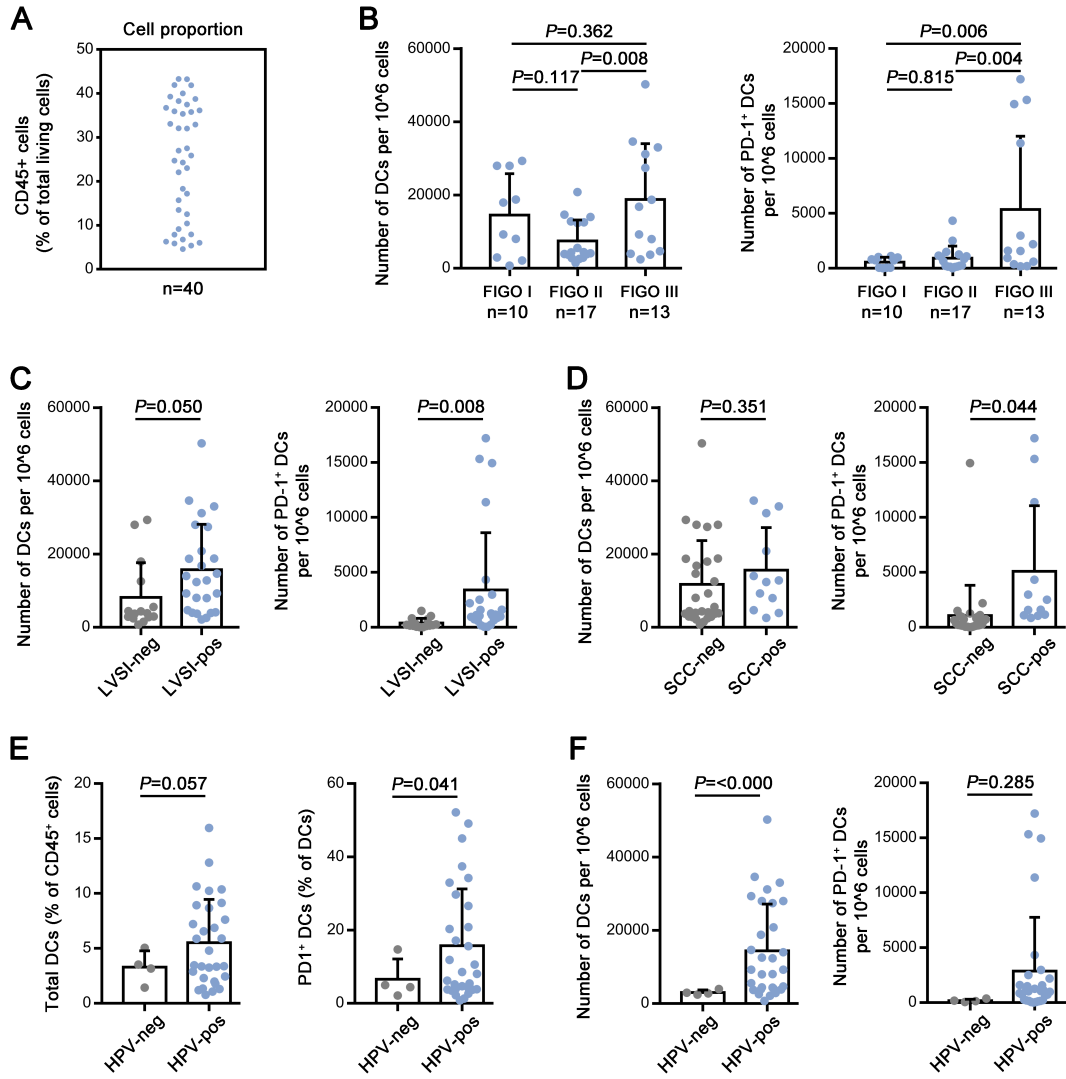


Supplementary Figure 1. Gating strategy



Supplementary Figure 2. Identification of enriched intratumoral PD-1+ DCs in advanced CC

Supplementary Table 1. Antibodies for flow cytometry analysis

Source	Identifier	Antibody
BD	563449	human anti-CCR7
Biologend	350213	human anti-CD103
Biologend	328619	human anti-CD107a
Biologend	301636	human anti-CD11c
Biologend	306018	human anti-CD123
Biologend	344106	human anti-CD141
Biologend	302016	human anti-CD16
Biologend	331506	human anti-CD1c
Biologend	300305	human anti-CD3
BD	562970	human anti-CD4
Biologend	334332	human anti-CD40
Biologend	304062	human anti-CD45
Biologend	304125	human anti-CD45RA
Biologend	362537	human anti-CD56
Biologend	344704	human anti-CD8
Biologend	305220	human anti-CD80
Biologend	305406	human anti-CD86
Biologend	338406	human anti-CD96
Biologend	519503	human anti-CXCL10
Biologend	357905	human anti-CXCL9
ebioscience	50487741	human anti-eomes
Biologend	372219	human anti-GZMB
Biologend	307630	human anti-HLA-DR
Biologend	502541	human anti-IFNG
biologend	501409	human anti-IL-10
BD	559325	human anti-IL-12
ebioscience	12701841	human anti-IL-1 $\beta$
Biologend	500327	human anti-IL-2
Biologend	350519	human anti-Ki67
Biologend	348701	human anti-Lineage Cocktail (CD3, CD14, CD19, CD20, CD56)
BD	562516	human anti-PD-1
biologend	329929	human anti-PD-1
Biologend	329708	human anti-PD-L1
Biologend	329616	human anti-PD-L2
Biologend	308125	human anti-perforin
Biologend	308105	human anti-perforin
Biologend	345006	human anti-Tim-3
Biologend	502929	human anti-TNF $\alpha$
Biologend	117317	mouse anti-CD11c
Biologend	124607	mouse anti-CD40
Biologend	104707	mouse anti-CD80
Biologend	105019	mouse anti-CD86
Biologend	505807	mouse anti-IFN-r
BD	560564	mouse anti-IL-12
Biologend	107625	mouse anti-MHCII
Biologend	135221	mouse anti-PD-1(CD279)
Biologend	135209	mouse anti-PD-1(CD279)
Biologend	506307	mouse anti-TNF $\alpha$
Biologend	400169	mouse IgG1, $\kappa$ isotype Ctrl

Supplementary Table 2. Association of clinical and pathological parameters with DCs infiltration

Characteristics	Patients	
	No.	%
<b>Total</b>	40	100.0
<b>Clinical stage</b>		
I	10	25.0
II	17	42.5
III	13	32.5
<b>HPV infection</b>		
no	4	10.0
yes	30	75.0
N/a	6	15.0
<b>Histology</b>		
SCC <sup>A</sup>	32	80.0
AC <sup>B</sup>	4	10.0
ASC <sup>C</sup>	4	10.0
<b>Tumor size</b>		
<4 cm	12	30.0
≥4cm	28	70.0
<b>Deep stromal invasion</b>		
no	15	37.5
yes	35	87.5
<b>Lymphovascular invasion</b>		0.0
no	15	37.5
yes	25	62.5
<b>Parametrial invasion</b>		
no	31	77.5
yes	9	22.5
<b>Vaginal invasion</b>		
no	25	62.5
yes	15	37.5
<b>Pelvic lymph node metastasis</b>		
no	27	67.5
yes	13	32.5
<b>SCC level<sup>D</sup></b>		
normal	28	70.0
high	12	30.0

<sup>A</sup>squamous cell carcinoma, <sup>B</sup>adenocarcinoma, <sup>C</sup>adenosquamous carcinoma

<sup>D</sup>serum SCC level below 5ng/ml is considered normal