

Table S1. Result of differentially expressed genes ($P < 0.05$).

Group	Gene
Immune response	
PIECs-DCs vs DCs	<p>↑: CCL24.CCR1. CXCL10. CXCL13. CXCL14. CD74. JUN. SLA-DQA1. LSA-DOB. XCL1. CCL14. CCL3L1. CCL4. CCR5. CXCL2. CSF2. IL-1A. IL-10. IL-6. TLR7.</p> <p>↓: OAS1.OAS2. CCL17. CCL20.CCR7. CD36. CD70. LOC106504372. LOC100520439. SLA-3. SLA-DRA. SLA-DRB1. SLA-DMB. SLA-DMA. SLA-DQB1. CSF3.IL-12A.IL-12B.IL-15.IL-19. IL-2RA.IL-23A.THBS1. TNFSF10. TNFSF11. VTN.</p>
PCV2-PIECs-DCs vs PIECs-DCs	<p>↑: OAS1. CCL17. CCL20. CCL24. CXCL12. CXCL10. CXCL14. VTN. IL-6. IL-7. TGFBR3. IL-10.</p> <p>↓: CCR2. CCR7. CCR4. CD36. CD70. CD74.SLA-DQA1. SLA-DRB1. SLA-DMB. SLA-DOB. SLA-DMA. SLA-DQB1. SLA-DRA. TNFSF11. IL-12B. CSF3. PPBP. THBS1. TNFSF10.</p>
IL-8 ^{over} -PIECs-DCs vs PIECs-DCs	<p>↑: CCL24. CXCL13. CXCL10. CXCL14. CD36. CD74. IL-6.</p> <p>↓: OAS1. CCL20. CCR7. CD70. SLA-DQA1. SLA-DRB1. SLA-DMB. SLA-DOB. SLA-DMA. SLA-DQB1. AMCF-II. CSF3. IL-12B. IL-18. IL-2RA. IL-23A. IL-7. THBS1.</p>
IL-8 ^{si} -PIECs-DCs vs PIECs-DCs	<p>↑: CCL20. CCL5. CCR2. CXCL12. CD70.SLA-DQA1. SLA-DRB1. SLA-DMB. SLA-DMA. SLA-DQB1. SLA-DRA. XCL1. IL-12B. IL-12A.</p> <p>↓: OAS2. CCL24. CXCL13. CXCL10. CXCL14. CD36. CD74. TNFAIP1. CCL14. IL-6. CCL8.</p>
Antigen processing and presentation of peptide or polysaccharide antigen via MHC class II	
PIECs-DCs vs DCs	<p>↑: LOC100520439.SLA-DOB.</p> <p>↓: LOC106504372.SLA-DRA. SLA-DQA1.SLA-DRB1.SLA-DMB.SLA-DMA.SLA-DQB1.SLA-DOA.</p>
PCV2-PIECs-DCs vs PIECs-DCs	<p>↑: LOC100520439.</p> <p>↓: LOC106504372. SLA-DRA. SLA-DQA1.SLA-DRB1.SLA-DMB.SLA-DMA.SLA-DQB1.SLA-DOA.SLA-DOB.</p>
IL-8 ^{over} -PIECs-DCs vs PIECs-DCs	<p>↑: LOC106504372</p> <p>↓: LOC100520439. SLA-DQA1. SLA-DRB1. SLA-DMB. SLA-DMA. SLA-DQB1. SLA-DOB.</p>
IL-8 ^{si} -PIECs-DCs vs PIECs-DCs	<p>↑: LOC106504372. SLA-DRA. SLA-DQA1.SLA-DRB1.SLA-DMB.SLA-DMA.SLA-DQB1.</p> <p>↓: LOC100520439.</p>
Inflammatory response	
PIECs-DCs vs DCs	<p>↑: CCR1. CXCL10.CXCL13. RELA. IL-10. TLR6. TLR7. TLR8.</p> <p>↓: CCL17. CCL20. CCR7. CXCR6. JAK2. IL-17F. IL-19. IL-2RA. IL-23A. TLR2. TLR4.</p>
PCV2-PIECs-DCs vs PIECs-DCs	<p>↑: CCL17. CCL20. AMCF-II. CXCL10. CXCR6. TLR7.</p> <p>↓: CCR2. CCR4. RELA. JAK2. IL-17B. IL-18. IL-23°. TLR8. TLR4.</p>
IL-8 ^{over} -PIECs-DCs vs PIECs-DCs	<p>↑: CXCL10. CCL4.</p> <p>↓: CCL20. CCR2. CCR3. CCR7. RELA. TNFRSF1A.IL-23A. TLR1. TLR10. TLR8.</p>
IL-8 ^{si} -PIECs-DCs vs PIECs-DCs	<p>↑: CCL20. CCR2. CCL5. CCR3. CXCL12. RELA. IL-18. IL-23°. IL-2RA. TLR8.</p> <p>↓: CXCL10. CXCL13. CCL4. CCL8. TLR3. TLR4.</p>
Cell adhesion	

PIECs-DCs vs ↑:	CD2.
DCs	↓: THY1. ADGRG1. CERCAM. ITGA2.
PCV2-PIECs-DCs vs	↑: CD2. ITGB5.
PIECs-DCs	↓: CASS4. THY1. WISP2. ADGRG1. ITGA2. ITGA6.
IL-8 ^{over} -PIECs-DCs vs	↑: CX3CR1. CASS4.
PIECs-DCs	↓: CD2. THY1. ITGA6. THBS3.
IL-8 ^{si} -PIECs-DCs vs	↑: THY1. ADGRG1. ITGA6. ITGB5. ICAM1. ICAM3.
PIECs-DCs	↓: CD2.
Angiogenesis	
PIECs-DCs vs ↑:	
DCs	↓: THY1. ADGRG1. ANG. ANGPT2. ANGPT4.
PCV2-PIECs-DCs vs	↑: PECAM1.
PIECs-DCs	↓: TGFA. VEGFA. ANG. ANGPT2. THY1.
IL-8 ^{over} -PIECs-DCs vs	↑: PECAM1.
PIECs-DCs	↓: THY1. ADGRG1. ANG. ANGPT4. VEGFA.
IL-8 ^{si} -PIECs-DCs vs	↑: THY1. ADGRG1. ANG. ANGPT4. VEGFA.
PIECs-DCs	↓: ANGPT2.

Table S2. GO analysis results of differentially expressed genes.

Group	Item	Gene Number	Up-Regulated	Down-Regulated
Biological process				
PIECs-DCs vs DCs	cell-cell adherens junction	4	1	3
	positive regulation of angiogenesis cell adhesion	5	3	2
	cell adhesion	26	14	12
	Angiogenesis	10	6	4
	regulation of cell adhesion	19	11	8
	immune response	48	20	28
	I-kappaB kinase/NF-kappaB signaling	17	6	11
	adherens junction	12	5	7
	inflammatory response	24	11	13
	cell migration	24	8	16
	cell differentiation	63	34	29
	chemotaxis	11	6	5
	immune response	30	14	16
PCV2-PIECs-DCs vs PIECs-DCs	cell migration	17	8	9
	chemotaxis	11	4	7
	JAK-STAT cascade	9	4	5
	angiogenesis	11	3	8
	cell adhesion	17	5	12
IL-8 ^{over} -PIECs-DCs vs PIECs-DCs	immune response	46	17	29
	cell adhesion	22	8	14
	inflammatory response	25	7	18

	chemotaxis	14	4	10
	cell migration	21	6	17
	endocytosis	11	6	5
	JAK-STAT cascade	5	2	3
	cytokine-mediated signaling pathway	15	5	10
	I-kappaB kinase/NF-kappaB signaling	7	2	5
IL-8 ^{si} -PIECs-DCs vs PIECs-DCs	immune response	49	27	22
	cell adhesion	21	15	6
	endocytosis	14	8	6
	cell migration	24	14	10
	axonogenesis	6	4	2
	I-kappaB kinase/NF-kappaB signaling	7	4	3
	chemotaxis	17	8	9
	JAK-STAT cascade	9	5	4
Cellular component				
PIECs-DCs vs DCs	cell-cell junction	10	6	4
	cell-cell adherens junction	4	3	1
	actin filament	4	3	1
	microtubule cytoskeleton	16	5	11
PCV2-PIECs-DCs vs PIECs-DCs	actin cytoskeleton	13	6	7
	actin cytoskeleton	11	8	3
	extracellular space	49	29	20
	cytoskeleton	23	10	13
IL-8 ^{over} -PIECs- DCs vs PIECs- DCs	Adherens junction	8	3	5
	cell-cell adherens junction	4	2	2
	actin cytoskeleton	10	6	4
	cell junction	19	11	8
IL-8 ^{si} -PIECs-DCs vs PIECs-DCs	cytoskeleton	31	21	10
	extracellular region	143	84	59
	cell-cell junction	7	4	3
	adherens junction	10	3	7
	cytoskeleton	25	10	15
PIECs-DCs vs DCs	actin cytoskeleton	7	5	2
molecular function				
PIECs-DCs vs DCs	endopeptidase activity	17	6	11
	oxidoreductase activity, acting on			
	a sulfur group of donors	5	3	2
	cytoskeletal protein binding	25	12	13
	transcription factor binding	9	3	6
PCV2-PIECs-DCs vs PIECs-DCs	cytokine activity	19	8	11
	transcription factor binding	6	2	4
	cytokine activity	13	4	9
	endopeptidase activity	11	3	8
IL-8 ^{over} -PIECs- DCs vs PIECs- DCs	receptor activity	28	15	13
	cytokine binding	5	1	4
	transcription factor binding	5	2	3
	endopeptidase activity	21	13	7
IL-8 ^{si} -PIECs-DCs	chemokine activity	4	3	1
	endopeptidase activity	19	12	7

vs PIECs-DCs	transcription factor binding	8	6	2
	oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen, NAD(P)H as one donor, and incorporation of one atom of oxygen	5	3	2
	cytokine activity	18	11	7