

Supporting Information

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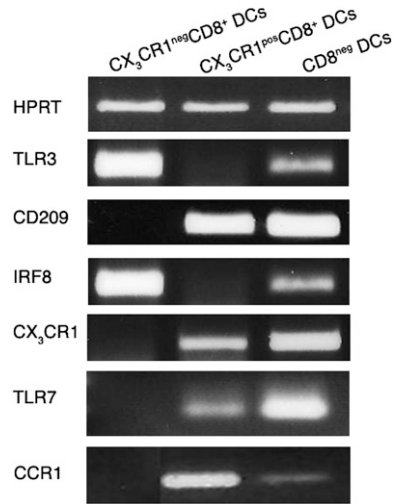


Fig. S1. Confirmative RT-PCR analysis for expression of selected genes by splenic dendritic cell (DC) populations sorted from spleens of $Cx_3cr1^{gfp/+}$ mice.

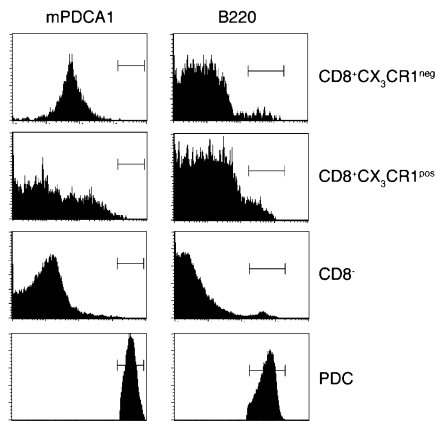


Fig. S2. Flow cytometric analysis of $CX_3CR1^-CD8^+$ classical DC (cDC), $CX_3CR1^+CD8^+$ DC, $CD8^-$ cDC, and plasmacytoid DC (PDC) of $Cx_3cr1^{gfp/+}$ mice for surface expression of PDC surface markers (BST-2, B220).

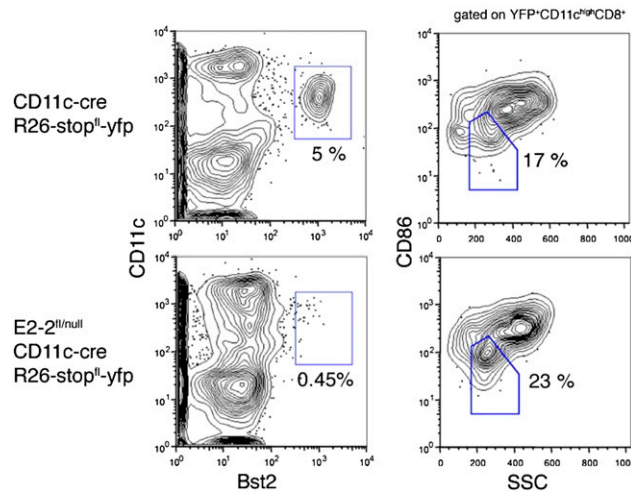


Fig. S3. Persistence of CX₃CR1⁺ CD8α⁺ DC in the absence of the transcription factor E2-2. (Left) Splenocytes from CD11c-Cre⁺, R26-EYFP⁺ E2-2 conditional or control E2-2 WT mice were analyzed for the presence of CD11c^{int} Bst2⁺ PDC. (Right) Gated B220⁻ CD11c^{hi} CD8α⁺ DC comprise the CD86^{lo} SSC^{lo} and the CD86^{hi} SSC^{hi} subsets (corresponding to CX₃CR1⁺ and CX₃CR1⁻ populations, respectively). Data are representative of three independent experiments.

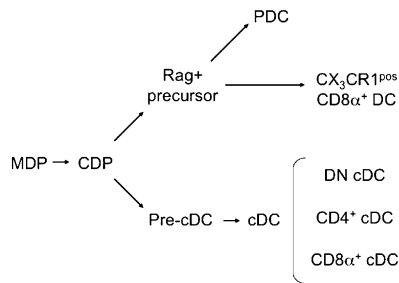


Fig. S4. Schematic showing the presumed origin of CX₃CR1⁺ CD8α⁺ DC. DN, double negative. MDP, macrophage dendritic cell precursors; CDP, common DC precursors.

Table S1. Genes expressed equally among splenic DC subsets

Gene	AFFY_ID	CX ₃ CR1 ⁺ CD8	CX ₃ CR1 ⁻ CD8	CD4	Double negative
<i>CD11c</i>	1419128_at	4399	3271	6415	4042
<i>H2-Ab1</i>	1451721_a_at	8151	9210	9581	8703
<i>CD80</i>	1451950_a_at	213	183	160	165
<i>Flt3</i>	1419538_at	3749	2580	1717	1477
<i>CD40</i>	1449473_s_at	820	500	949	695
<i>Stat3</i>	1460700_at	983	542	735	660

Table S2. Genes expressed by CX₃CR1⁺ and cCX₃CR1⁻ CD8α⁺ DC

Gene	AFFY_ID	CX ₃ CR1 ⁺ CD8	CX ₃ CR1 ⁻ CD8	CD4	Double negative
<i>CD8</i>	1444078_at	1572	1942	—	—
<i>Sca1</i>	1417185_at	1870.2	1180.2	646.2	406.7
<i>CD24a</i>	1416034_at	509	966	—	283
<i>Hspe1</i>	1422579_at	119.7	193.7	—	—
<i>Nfe2l3</i>	1417520_at	177.4	110.6	—	—
<i>Laf4</i>	1430435_at	157.8	121.3	5.1	8.6
<i>Bcl2l14</i>	1429347_at	249.4	205.5	—	—

Table S3. Genes highly expressed by cCX₃CR1⁻ CD8 α ⁺ DC but low or absent from CX₃CR1⁺ CD8 α ⁺ DC

Gene	AFFY_ID	CX ₃ CR1 ^{pos}	CX ₃ CR1 ^{neg}	CD4	Double negative	Gene type
<i>IRF8</i>	1416714_at	1408	13284	616	4847	Transcription factor
<i>Id2</i>	1422537_a_at	55	1161	354	481	
<i>Notch4</i>	1449146_at	—	545	—	—	
<i>Tlr3</i>	1422782_s_at	98	1337	—	214	Toll-like receptor
<i>Tlr12</i>	1438329_at	—	196	—	—	
<i>DEC205</i>	1449328_at	—	135	—	—	Membrane protein
<i>CD103</i>	1449216_at	—	1130	—	—	
<i>Langerin</i>	1425243_at	—	724	—	—	
<i>CD36</i>	1450883_a_at	57	1454	—	165	
<i>IL12p40</i>	1449497_at	—	165	—	—	Cytokine
<i>IL15</i>	1418219_at	—	191	—	—	
<i>CD86</i>	1420404_at	312	3099	811	1071	Costimulation
<i>CD81</i>	1416330_at	786	4819	1712	587	
<i>XCR1</i>	1422294_at	—	519	—	—	Chemokine
<i>Cxcl9</i>	1418652_at	506.2	4429.6	447.2	800.4	
<i>Cxcr3</i>	1449925_at	121.9	1819	229.4	311.4	
<i>Cyst C</i>	1426195_a_at	3459	12870	3533	5790	Other
<i>CD1d1</i>	1449130_at	382	1506	515	552	
<i>Ppt1</i>	1422468_at	302	5708	326	921	

Table S4. Genes expressed in CX₃CR1⁺ CD8 α ⁺ DC and cCD8 α ⁻ DC

Gene	AFFY_ID	CX ₃ CR1 ^{pos}	CX ₃ CR1 ^{neg}	CD4	Double negative	Gene type
<i>Irf4</i>	1421173_at	880	—	304	407	Transcription factor
<i>Relb</i>	1417856_at	2264	630	3119	1782	
<i>Sirpb</i>	1458683_at	1223	—	3468	2382	
<i>Stat4</i>	1448713_at	882	—	593	612	
<i>Tlr1</i>	1449049_at	745	75	1165	991	Toll-like receptor
<i>Tlr5</i>	1450242_at	261	—	338	85	
<i>Tlr7</i>	1422010_at	184	—	452	146	
<i>CD209a</i>	1426172_a_at	995	—	651	768	Lectin
<i>DCIR</i>	1425407_s_at	1173.4	—	1054.8	1560.6	
<i>DCIR3</i>	1429954_at	853	34	1446	967	
<i>Clecsf6</i>	1425407_s_at	1173	—	1054	1560	
<i>Clecsf12</i>	1420699_at	4128	406	4425	3240	
<i>Clecsf10</i>	1419627_s_at	348	—	868	287	
<i>CCR2</i>	1421186_at	705	225	142	539	Chemokine receptor
<i>CCR6</i>	1450357_at	342	55	1094	957	
<i>CCL3</i>	1419561_at	55.6	—	200	163	
<i>CD115</i>	1419873_s_at	3086	90	3336	2071	Other
<i>F4I80</i>	1451161_a_at	578	143.1	3068	1692	
<i>F4I80-like</i>	1451563_at	223	—	444.8	521	
<i>CD71</i>	1452661_at	1327.4	408.7	1452.6	1448.5	
<i>Plxnb2</i>	1416683_at	1402.5	218	1009.9	776.2	
<i>Ltb</i>	1419135_at	2146.3	—	1567.7	1112.3	
<i>Ifitm3</i>	1423754_at	3752.7	436.8	4934.5	3893.3	
<i>Bcl3</i>	1418133_at	1264	146	674	655	
<i>S100a4</i>	1424542_at	8947.1	—	7229.6	7578	Calcium binding
<i>S100a6</i>	1421375_a_at	1873.5	139.7	1217	1359.8	
<i>Cyp4f16</i>	1417277_at	2466.3	241.2	3064	2479.9	Cytochrome
<i>Cybb</i>	1436778_at	4727.8	107.7	3569.2	3064.2	

Table S5. Genes expressed by PDC and CX₃CR1⁺ CD8 α ⁺ DC as compared with cDC

Gene	AFFY_ID	CX ₃ CR1 ^{pos}	CX ₃ CR1 ^{neg}	CD4	Double negative
<i>E2-2</i>	1416723_at	2178	126	388	462
<i>Ly-49Q</i>	1425888_at	1519	52	155	311
<i>Ly6c</i>	1421571_a_at	1929	168	200	587
<i>Spib</i>	1460407_at	1577	60	577	704
<i>CD209d</i>	1426183_a_at	1336	—	—	179
<i>CD209e</i>	1420582_at	950	—	—	187
<i>Cyp7b1</i>	1421074_at	838	—	—	28
<i>Lefty1</i>	1417638_at	503	—	—	—
<i>Ptprf</i>	1420843_at	378	—	—	—
<i>Blnk</i>	1451780_at	334	—	—	78
<i>CD62L</i>	1419480_at	1040	313	99	292
<i>Ccr1</i>	1419609_at	274	—	—	52
<i>Siglech</i>	1457786_at	114	—	71	56
<i>Bst2</i>	1424921_at	660	235	90	232
<i>Il7r</i>	1448575_at	559	106	228	259
<i>Kdr</i>	1449379_at	717	—	—	94
<i>Runx2</i>	1424704_at	419	—	79	142
<i>Atp1b1</i>	1451152_a_at	206	—	—	68
<i>Snag1</i>	1416359_at	1071	164	250	189
<i>Hpse</i>	1433930_at	1787	232	468	452
<i>Igk-C</i>	1427455_x_at	935	248	252	185

Table S6. Genes silent in PDC and CX₃CR1⁺ CD8 α ⁺ DC as compared with cDC

Gene	AFFY_ID	CX ₃ CR1 ⁺ CD8	CX ₃ CR1 ⁻ CD8	CD4	Double negative
<i>Id2</i>	1422537_a_at	55	1161	354	481
<i>CCR7</i>	1423466_at	359	983	844	1015
<i>Tgfb1</i>	1448123_s_at	2276	5753	7043	4501
<i>Adam8</i>	1416871_at	128	2548	856	875
<i>Fgl2</i>	1421855_at	64	419	205	313
<i>Apob48r</i>	1420382_at	450	1907	1284	1396
<i>Atf3</i>	1449363_at	158	461	428	516
<i>Nr4a2</i>	1455034_at	32	344	138	372
<i>CD81</i>	1416330_at	786	4820	1713	588