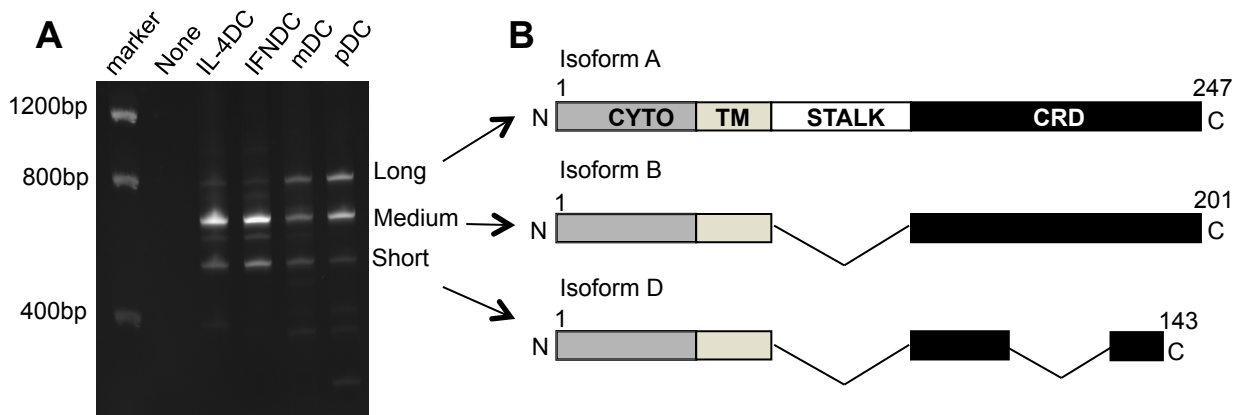


**Supplemental Data for :**

**Opposing roles of Dectin-1 expressed on human pDCs and mDCs in Th2 polarization**

HyeMee Joo,\* Katherine Upchurch,\*<sup>§</sup> Wei Zhang,\* Ling Ni,\* Dapeng Li,\* Yaming Xue,\*  
Xiao-Hua Li,\* Toshiyuk Hori,<sup>¶</sup> Sandra Zurawski,\* Yong-Jun Liu,\* Gerard Zurawski,\*<sup>§</sup> and SangKon Oh\*<sup>§, ‡</sup>

**This PDF file includes:  
Supplemental Figures 1-4.**



**Supplemental FIGURE 1.** Human pDCs express Dectin-1. **(A)** Dectin-1 mRNA expression in IL-4DCs, IFNDCs, and blood mDCs and pDCs. PCR products were run in 1.5% agarose gel. **(B)** Schematic pictures of hDectin-1 isoforms A, B, and D.

```

A: B9_B16 ATGGAATATCATCCTGATTTAGAAAATTTGGATGAAGATGGATATACTCAATTACACTTC 60
B: B4_B7_B8_B14 ATGGAATATCATCCTGATTTAGAAAATTTGGATGAAGATGGATATACTCAATTACACTTC 60
D: B11_B12 ATGGAATATCATCCTGATTTAGAAAATTTGGATGAAGATGGATATACTCAATTACACTTC 60
*****

A: B9_B16 GACTCTCAAAGCAATACCAGGATAGCTGTTGTTTCAGAGAAAAGGATCGTGTGCTGCATCT 120
B: B4_B7_B8_B14 GACTCTCAAAGCAATACCAGGATAGCTGTTGTTTCAGAGAAAAGGATCGTGTGCTGCATCT 120
D: B11_B12 GACTCTCAAAGCAATACCAGGATAGCTGTTGTTTCAGAGAAAAGGATCGTGTGCTGCATCT 120
*****

A: B9_B16 CCTCCTTGGCGCCTCATTGCTGTAATTTTGGGAATCCTATGCTTGGTAATACTGGTGATA 180
B: B4_B7_B8_B14 CCTCCTTGGCGCCTCATTGCTGTAATTTTGGGAATCCTATGCTTGGTAATACTGGTGATA 180
D: B11_B12 CCTCCTTGGCGCCTCATTGCTGTAATTTTGGGAATCCTATGCTTGGTAATACTGGTGATA 180
*****

A: B9_B16 GCTGTGGTCC TGGGTACCATGGCTATTTGGAGATCCAATTCAGGAAGCAACACATTGGAG 240
B: B4_B7_B8_B14 GCTGTGGTCC TGGGTACCATGG----- 202
D: B11_B12 GCTGTGGTCC TGGGTACCATGG----- 202
*****

A: B9_B16 AATGGCTACTTTC TATCAAGAAATAAAGAGAACCACAGTCAACCCACACAATCATCTTTA 300
B: B4_B7_B8_B14 -----
D: B11_B12 -----

A: B9_B16 GAAGACAGTGTGACTCCTACCAAAGCTGTCAAACCACAGGGGTTCTTTCCAGCCCTTGT 360
B: B4_B7_B8_B14 -----GGGTTCTTTCCAGCCCTTGT 222
D: B11_B12 -----GGGTTCTTTCCAGCCCTTGT 222
*****

A: B9_B16 CCTCCTAATTGGATTATATATGAGAAGAGCTGTTATCTATTTCAGCATGTCACTAAATTC 420
B: B4_B7_B8_B14 CCTCCTAATTGGATTATATATGAGAAGAGCTGTTATCTATTTCAGCATGTCACTAAATTC 282
D: B11_B12 CCTCCTAATTGGATTATATATGAGAAGAGCTGTTATCTATTTCAGCATGTCACTAAATTC 282
*****

A: B9_B16 TGGGATGGAAGTAAAAGACAATGCTGGCAACTGGGCTCTAATCTCCTAAAGATAGACAGC 480
B: B4_B7_B8_B14 TGGGATGGAAGTAAAAGACAATGCTGGCAACTGGGCTCTAATCTCCTAAAGATAGACAGC 342
D: B11_B12 TGGGATGGAAGTAAAAGACAATGCTGGCAACTGGGCTCTAATCTCCTAAAGATAGACAGC 342
*****

A: B9_B16 TCAAATGAATTGGGATTTATAGTAAAACAAGTGTCTTCCCAACCTGATAATTCATTTTGG 540
B: B4_B7_B8_B14 TCAAATGAATTGGGATTTATAGTAAAACAAGTGTCTTCCCAACCTGATAATTCATTTTGG 402
D: B11_B12 TCAAATGAATTG----- 354
*****

A: B9_B16 ATAGGCCTTTCTCGGCCCCAGACTGAGGTACCATGGCTCTGGGAGGATGGATCAACATTC 600
B: B4_B7_B8_B14 ATAGGCCTTTCTCGGCCCCAGACTGAGGTACCATGGCTCTGGGAGGATGGATCAACATTC 462
D: B11_B12 -----

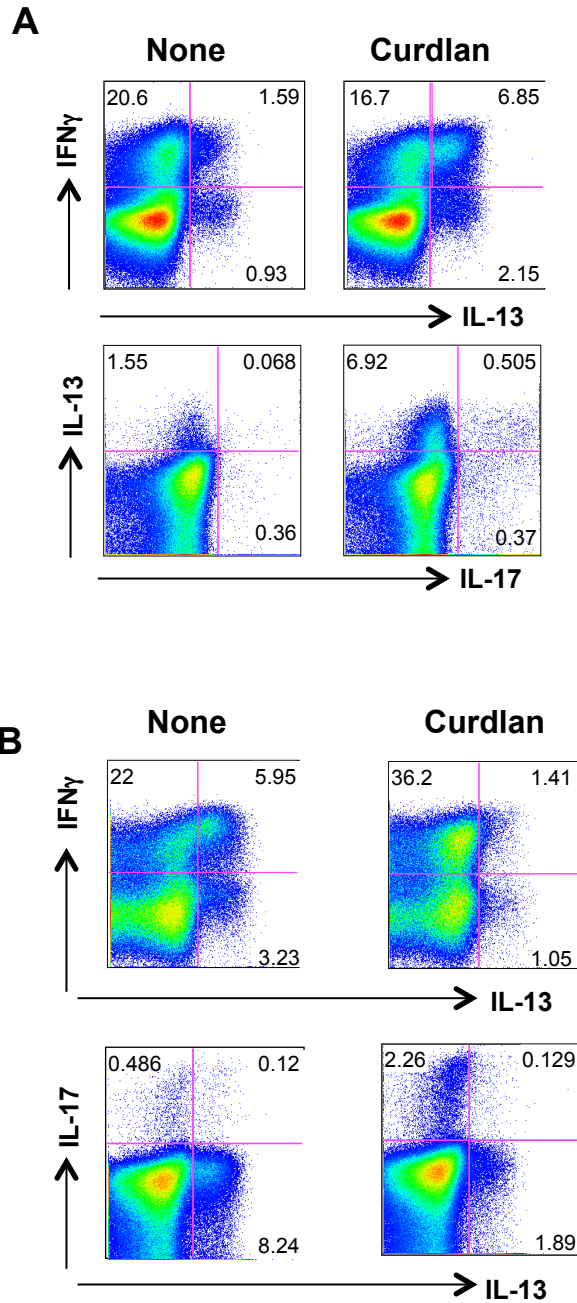
A: B9_B16 TCTTCTAACTTATTTTCAGATCAGAACCACAGCTACCCAAGAAAACCCATCTCCAAATTGT 660
B: B4_B7_B8_B14 TCTTCTAACTTATTTTCAGATCAGAACCACAGCTACCCAAGAAAACCCATCTCCAAATTGT 522
D: B11_B12 -----ATTTTCAGATCAGAACCACAGCTACCCAAGAAAACCCATCTCCAAATTGT 403
*****

A: B9_B16 GTATGGATTACGTTGTCAGTCATTTATGACCAACTGTGTAGTGTGCCCTCATATAGTATT 720
B: B4_B7_B8_B14 GTATGGATTACGTTGTCAGTCATTTATGACCAACTGTGTAGTGTGCCCTCATATAGTATT 582
D: B11_B12 GTATGGATTACGTTGTCAGTCATTTATGACCAACTGTGTAGTGTGCCCTCATATAGTATT 463
*****

A: B9_B16 TGTGAGAAGAAGTTTTCAATGTAA 744
B: B4_B7_B8_B14 TGTGAGAAGAAGTTTTCAATGTAA 606
D: B11_B12 TGTGAGAAGAAGTTTTCAATGTAA 487
*****

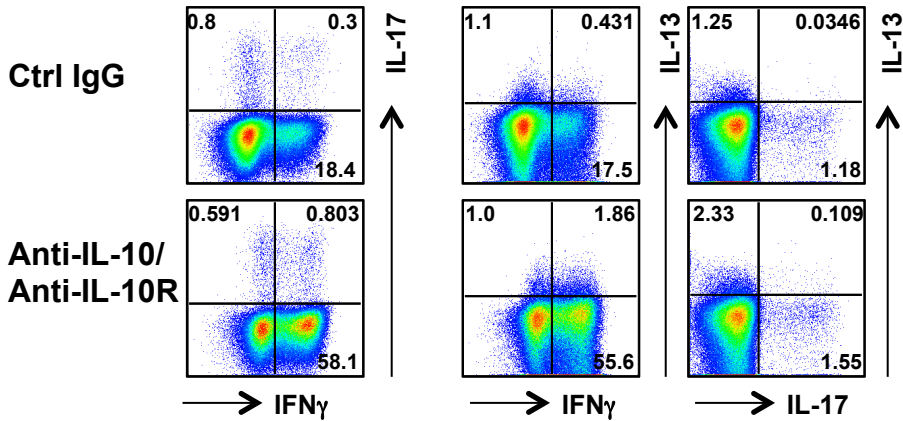
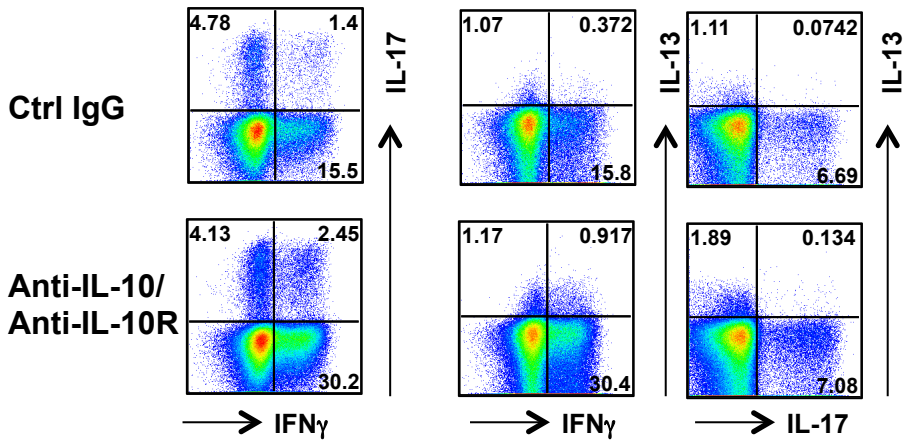
```

**Supplemental FIGURE 2.** cDNA sequences of hDectin-1 isoforms from pDCs. RNAs were extracted from FACS-sorted pDCs. RT-PCR was performed using primers described in Materials and Methods. cDNAs (long, medium, and short in Fig. 1E) were separated.



**Supplemental FIGURE 3**

hDectin-1-activated pDCs promote Th2 induction and Th2 cytokine expression, while hDectin-1-activated mDCs decrease Th2 induction and Th2 cytokine secretion. Allogeneic naïve CD4<sup>+</sup> T cells were co-cultured with untreated or curdlan-treated blood pDCs (**A**) or mDCs (**B**) for 7 days. T cells were stimulated with PMA/Ionomycin and stained for intracellular expression of IL-13,IFN $\gamma$  and IL-17. Experiments in (**A**) and (**B**) were performed with cells from different healthy donors.

**A****B****Supplemental FIGURE 4**

Blocking IL-10 results in enhanced IFN $\gamma$ <sup>+</sup>, IFN $\gamma$ <sup>+</sup>IL-13<sup>+</sup>, and IFN $\gamma$ <sup>+</sup>IL-17<sup>+</sup> CD4<sup>+</sup> T cell responses. Allogeneic naïve (A) and total (B) CD4<sup>+</sup> T cells were co-cultured with curdlan-treated blood mDCs for 7 days in the presence of control IgG or anti-IL-10/anti-IL-10R antibodies. T cells were stimulated with PMA/Ionomycin and stained for intracellular expression of IL-13, IFN $\gamma$ , and IL-17.