**Supplementary Table 2. References from previous known regulatory interactions from figure 3.**

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| **Transcription factor** | **Target gene** | **Reference** |
| PU.1 | CD11C | PMID: 28338898. PU.1 transactivates the Itgax (CD11C) promoter via direct binding to the cis-element on the gene in DCs and through gene regulation of a partner molecule, IRF4, which transactivates the Itgax gene in a synergistic manner with PU.1. |
| STAT6 | CD209,  CD83 | PMID: 26758199. Treatment with PF-956980 (that inhibit STAT6) affected the presence of the surface markers CD209 and CD83 during GM-CSF/IL-4-mediated differentiation to DCs. |
| AP1/JUN | AP1 | PMID: 22550342. Macrophage specific H3K4me1 regions were characterized by a distinct motif composition, including GT box, an AP1 like motif, an E box element, the consensus PU.1 motif, a composite CEBP\_bZIP element, and a NFKB motif. |
| CEBPA | CEBPA  CEBPB | PMID: 28584084. C/EBPβ can rescue the formation of granulocytes in C/EBPα-deficient mice. Moreover, C/EBPβ almost always binds at C/EBPα-binding sites |
| IRF4 | IRF4 | PMID: 10453013. IRF4 protein bound to a regulatory element in its own promoter, suggesting an autoregulatory loop controlling IRF4 mRNA expression in DCs. |
| IRF8 | BATF3 CEBPA  KLF4  MAFB | PMID: 28781277. KLF4 and BATF3 serve as critical transcription factors downstream of IRF8 to induce the differentiation of monocytes and DCs, respectively.  PMID: 28781277. Conversely, IRF8 blocks the activity of the transcription factor CEBPalfa to suppress the neutrophil differentiation program.  PMID: 23319570. Analysis of DNA motifs in cis-regulatory elements of these indirect IRF8 target genes predicted that Krüppel-like factor-4 (KLF4)  PMID: 23319570. IRF8-induced transcription factor genes such as MafB have also been implicated in monocyte differentiation. |
| KLF4 | IRF8 | PMID: 23319570. Introduction of KLF4 into an Irf8(-/-) myeloid progenitor cell line induced a subset of IRF8 target genes and caused partial monocyte differentiation. |
| MAFB | CEBPB | PMID: 12966068. Upon inspection of the 8.2-kb nucleotides sequence, we found a consensus ets-binding site at 7.8-kb upstream and a consensus C/EBP-binding site at 86-bp upstream of the transcription initiation site of the mafB gene. |
| NFKB1 | IRF4  NFKB2 | PMID: 16272311. The promoter of IRF4, a gene involved in subset-specific DC development, also contains several putative NF-kB binding sites.    PMID: 22323450. Activation of this noncanonical member of the NF-B family is induced independently from the canonical NF-B signaling pathway, but an interaction between canonical and noncanonical NF-B proteins has been described. |
| PU.1 | CEBPA CEBPB  IRF4  IRF8  KLF4  MAFB | PMID: 17762869. PU.1 induced the KLF4 promoter 15 fold.  PMID: 24070385. Pu.1 in monocytes favors DC development at the expense of a macrophage fate by directly inhibiting expression of the macrophage factor, MafB. |
| STAT5 | CEBPA  NFKB2 | PMID: 22323450. STAT5-mediated downregulation  of PU.1 and C/EBP. STAT5 activates NFKB2 by phosphorylation. |
| STAT6 | NFKB  PU.1 | PMID: 16540365. Another transcription factor that has been implicated in STAT6 signaling is NF-kB.  PMID: 26758199. An alternative mechanism may be provided if STAT6 recruits PU.1. |