

## Supplemental Material

### Supplemental Table Legends

**Table S1** Multi-comparison common gene probe lists were generated based on the gene expression comparison criteria for C/EBP $\beta$ -3T3<sup>RasV12</sup> vs. 3T3<sup>RasV12</sup> [ $\geq$ +1.5-fold;  $p\leq 0.05$ ], *Cebpb*<sup>-/-</sup>/Ras<sup>V12</sup> vs. WT/Ras<sup>V12</sup> MEFs [ $\leq$ -1.5-fold;  $p\leq 0.05$ ], and *Cebpg*<sup>-/-</sup> vs. WT MEFs [ $\geq$ +1.5-fold;  $p\leq 0.05$ ]. Table titles and number of probes are listed below.

**Table S1a:** Probe set for C/EBP $\beta$ -3T3<sup>RasV12</sup> vs. 3T3<sup>RasV12</sup> (1203 probes)

**Table S1b:** Probe set for *Cebpg*<sup>-/-</sup> vs. WT MEFs (657 probes)

**Table S1c:** Probe set for *Cebpb*<sup>-/-</sup>/Ras<sup>V12</sup> vs. WT/Ras<sup>V12</sup> MEFs (650 probes)

**Table S1d:** Common probes between C/EBP $\beta$ -3T3<sup>RasV12</sup> vs. 3T3<sup>RasV12</sup> and *Cebpg*<sup>-/-</sup> vs. WT MEFs (137 probes)

**Table S1e:** Common probes between *Cebpb*<sup>-/-</sup>/Ras<sup>V12</sup> vs. WT/Ras<sup>V12</sup> MEFs and *Cebpg*<sup>-/-</sup> vs. WT MEFs (120 probes)

**Table S1f:** Common probes between C/EBP $\beta$ -3T3<sup>RasV12</sup> vs. 3T3<sup>RasV12</sup> and *Cebpb*<sup>-/-</sup>/Ras<sup>V12</sup> vs. WT/Ras<sup>V12</sup> MEFs (224 probes)

**Table S1g:** Common probes between C/EBP $\beta$ -3T3<sup>RasV12</sup> vs. 3T3<sup>RasV12</sup> and *Cebpg*<sup>-/-</sup> vs. WT MEFs and *Cebpb*<sup>-/-</sup>/Ras<sup>V12</sup> vs. WT/Ras<sup>V12</sup> MEFs (59 probes)

**Table S2** Multi-comparison common gene probe lists were generated based on the gene expression comparison criteria for C/EBP $\beta$ -3T3<sup>RasV12</sup> vs. 3T3<sup>RasV12</sup> [ $\geq$ +1.5-fold;  $p\leq 0.05$ ], *Cebpb*<sup>-/-</sup>/Ras<sup>V12</sup> vs. WT/Ras<sup>V12</sup> MEFs [ $\leq$ -1.5-fold;  $p\leq 0.05$ ], and *Cebpg*<sup>-/-</sup> vs. WT MEFs [ $\geq$ +1.5-fold;  $p\leq 0.05$ ] (see Supplementary Tables 1a-d). We further refined the probes lists to number of genes and generated unique gene set interactions tables, graphically represented in the Venn diagram (Figure 3A). Table titles and number of genes are listed below.

**Table S2a:** Unique gene set for C/EBP $\beta$ -3T3<sup>RasV12</sup> vs. 3T3<sup>RasV12</sup> (547 genes)

**Table S2b:** Unique gene set for *Cebpg*<sup>-/-</sup> vs. WT MEFs (328 genes)

**Table S2c:** Unique gene set for *Cebpb*<sup>-/-</sup>/Ras<sup>V12</sup> vs. WT/Ras<sup>V12</sup> MEFs (233 genes)

**Table S2d:** Unique gene set common to both C/EBP $\beta$ -3T3<sup>RasV12</sup> vs. 3T3<sup>RasV12</sup> and *Cebpg*<sup>-/-</sup> vs. WT MEFs (61 genes)

**Table S2e:** Unique gene set common to both C/EBP $\beta$ -3T3<sup>RasV12</sup> vs. 3T3<sup>RasV12</sup> and *Cebpb*<sup>-/-</sup>/Ras<sup>V12</sup> vs. WT/Ras<sup>V12</sup> MEFs (106 genes)

**Table S2f:** Unique gene set common to both *Cebpb*<sup>-/-</sup>/Ras<sup>V12</sup> vs. WT/Ras<sup>V12</sup> MEFs and *Cebpg*<sup>-/-</sup> vs. WT MEFs (48 genes)

**Table S2g:** Unique gene set common to C/EBP $\beta$ -3T3<sup>RasV12</sup> vs. 3T3<sup>RasV12</sup> and *Cebpg*<sup>-/-</sup> vs. WT MEFs and *Cebpb*<sup>-/-</sup>/Ras<sup>V12</sup> vs. WT/Ras<sup>V12</sup> MEFs (47 genes)

## SUPPLEMENTAL MATERIALS AND METHODS

**SASP gene promoter sequences and primer locations for ChIP assays.** The functional C/EBP binding site in the *Il6* proximal promoter has been characterized extensively (1); see below. We also searched for putative C/EBP binding elements in the vicinity of transcriptional start sites in the *Il1a* and *Il1b* genes using TFSearch:

<http://www.cbrc.jp/research/db/TFSEARCH.html>

The results are shown below. The candidate C/EBP element for *IIIa* was located in the first intron, approximately 600 bp from the start site. The known or predicted C/EBP sites within each gene are highlighted in blue. ChIP-qPCR primer sequences were placed flanking or adjacent to the binding sites and are highlighted in yellow. Proximal promoter and/or intronic regions are shown in lower case, cDNA RefSeq is shown in upper case, and +1 indicates the transcription start site.

### *Il6 (Mus musculus)*

### *IIIa (*Mus musculus*)*

atactcagactgataatttttcaaggcagattttccctacaaagaggagggaaagaagctcatccctcaaatgc  
cttagctgccaagtatcctgcccattccatattcagtcgtgggcacaataaacaagttagccaaaacacaaagtac  
agctatggagctcagtcgtttggcttcactctgatttgaggattttccctctccactggcttgc  
cctggccgtcttccgttttaagactacatgtctaatcacatggatttagcaagaataggctgatcaagtcaa  
cgccccgtgaatcttgcagcaacattaccacatggattgtataatctgtcctctggccgtatcaggcagaatga  
acatagaaaagatactaagcagaattgttccctgtaaaattcccagtgcacacacatggccactcctacctgcttgc  
+1  
gaagactataaaaaggcagagaaggcctgactcagacttAAGTCTCCAGGGCAGAGAGGAGTCAACTCATTGGCGCT  
TGAGTCGGCAAAGtattgtccttatcacgtctaaggctataaaattgtctttgttgccttgcactgtcctct  
ctcaaggcaccttgttaaggctatggttttcttcttcttcttcttcttcttcttcttcttcttcttcttcttcttctt  
ctt  
cctc  
taatttagtacaggggctggatgagagatttaagaaaagaattctttcttcttagtgcagggaaacttagggagcagc  
tgacaagattcatggaggagacttaccagcaaagtcaatctttcttgcggatggacgtctactggaaaa  
atggaga**gaggccatcaggttccattctc**ccttccttatataaggcagacacccactctgtgatatttt  
gtccttaatatttcacctattaaatgcctactatgt**gtatgcaat**agactgaacacaaagaataccaggtagag  
aaaacattctaaaacaaaagtacaagttagtggaggagatagaaggcatacagaaataatgtaaaggagtagacagagaa  
aatagagggaaattctggcatgtgataagtcaactcattgtatattctcaagagcaaagttagggcattcccttgc  
aagcacggggtttagaagtgactgagctgacagccactgggttcttacagAAATCAAGATG

**IIIb (*Mus musculus*)**

aagccctgtaacacagtgtatggagagcacagaaggcaccatccagttaccaaactccaactgc  
caaagctccctca  
gcttaaggcacaaggaggcgagagaggtgacacacttctgggtgtcatctacgtgcctac  
cttgcacatcc  
tgaacttaaatgtacagctaaccaggaaaaccaatattttatattgacaccatctgc  
acaattgtccagggggg  
aaataatgccatattcaccacgatgacacacttgcgaatgtgtcactatctgc  
ccacccttgacttccaggatta  
gaaattatttcagggttagcaatagcctttccctaagaattccatcaagcttccccctcccc  
acccttcag  
tttgttgaaatcagttacccaaggaaaatttcacagcttctacttgc  
tttttaggactataaaacaagg  
+1  
gaggaaaaacaagttggacaacaaaccctgcagtggCGAGGCCTAATAGGCTCATCTGG  
GATCCTCTCCAGCAA  
GCTTCCTTGCAAGTGTCTGAAGCAGCTATG

**SUPPLEMENTAL REFERENCES**

1. **Akira, S., H. Isshiki, T. Sugita, O. Tanabe, S. Kinoshita, Y. Nishio, T. Nakajima, T. Hirano, and T. Kishimoto.** 1990. A nuclear factor for IL-6 expression (NF-IL6) is a member of a C/EBP family. *Embo Journal* **9**:1897-1906.