

Supplemental Data

De-regulated microRNAs in pediatric cancer stem cells target pathways involved in cell proliferation, cell cycle and development

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Table S1. Cell cycle and cell proliferation related genes in the cancers. (✓ indicates the gene is in the gene set named in the column header).

	CHRONIC MYELOID LEUKEMIA	GLIOMA	MELANOMA	PANCREATIC CANCER	PROSTATE CANCER	SMALL CELL LUNG CANCER
CDKN1A	✓	✓	✓	✓	✓	
CDKN1B	✓			✓	✓	✓
E2F1	✓		✓	✓	✓	✓
RB1	✓	✓	✓	✓	✓	✓
PTEN		✓	✓		✓	✓

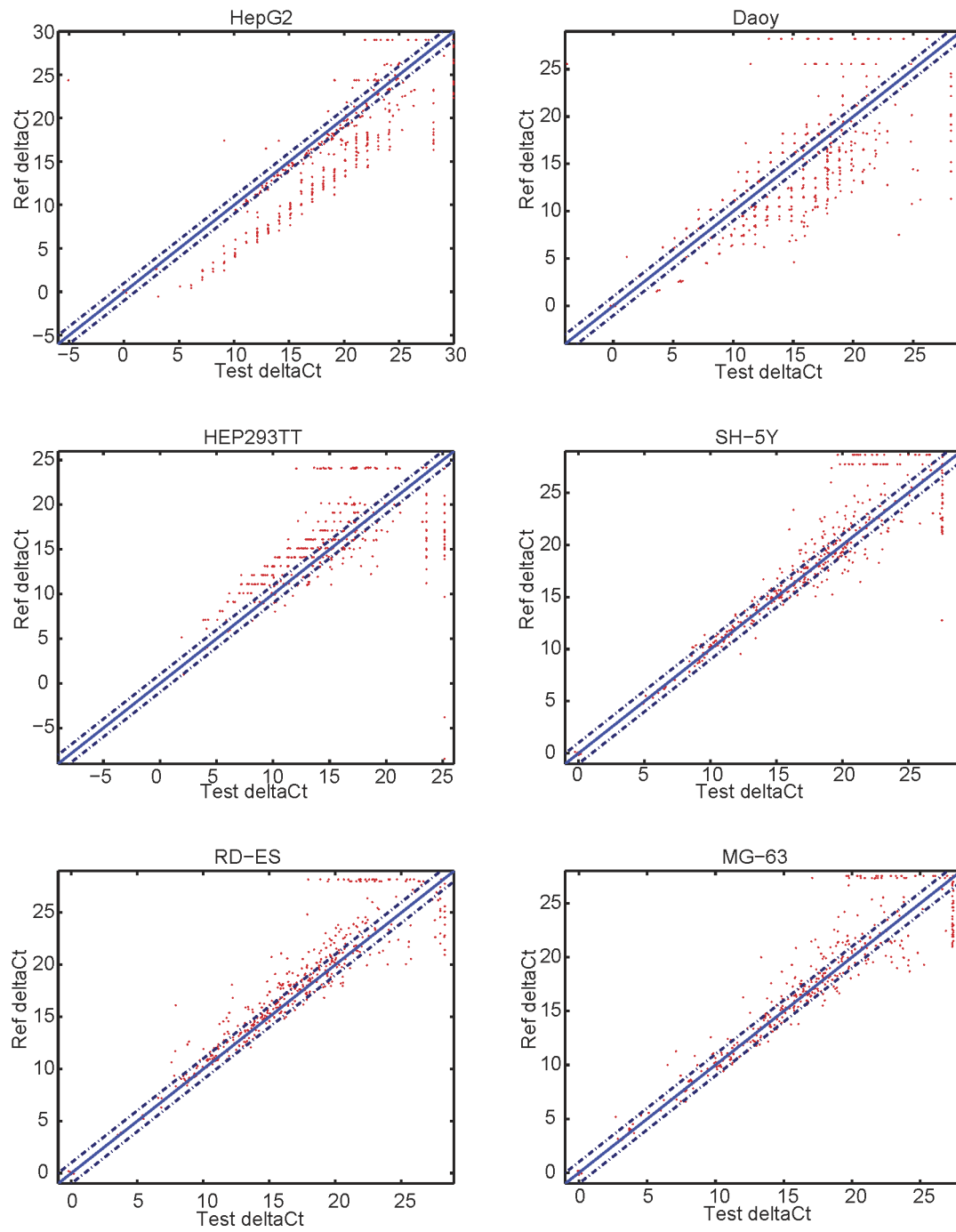


Figure S1. The scatter plots of raw ΔCt of 6 cell lines between test (enriched CSC miRNAs) and reference (non-enriched counterpart) samples before normalization.

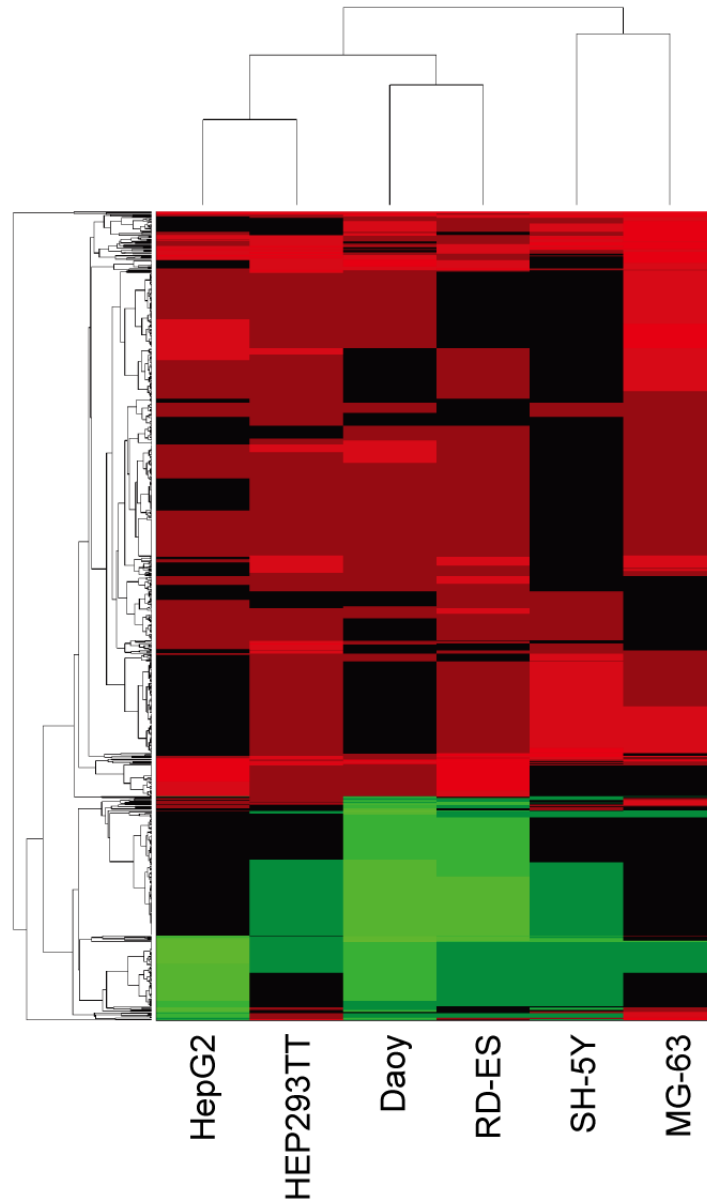


Figure S2. The heatmap of 865 putative microRNA target genes. 630 of 865 putative microRNA target genes were up-regulated and 235 were down regulated. The 863 target genes' value were computed by $\mathbf{B}\Delta x_j$ (see Eq. 2, Materials and Methods Section for details).

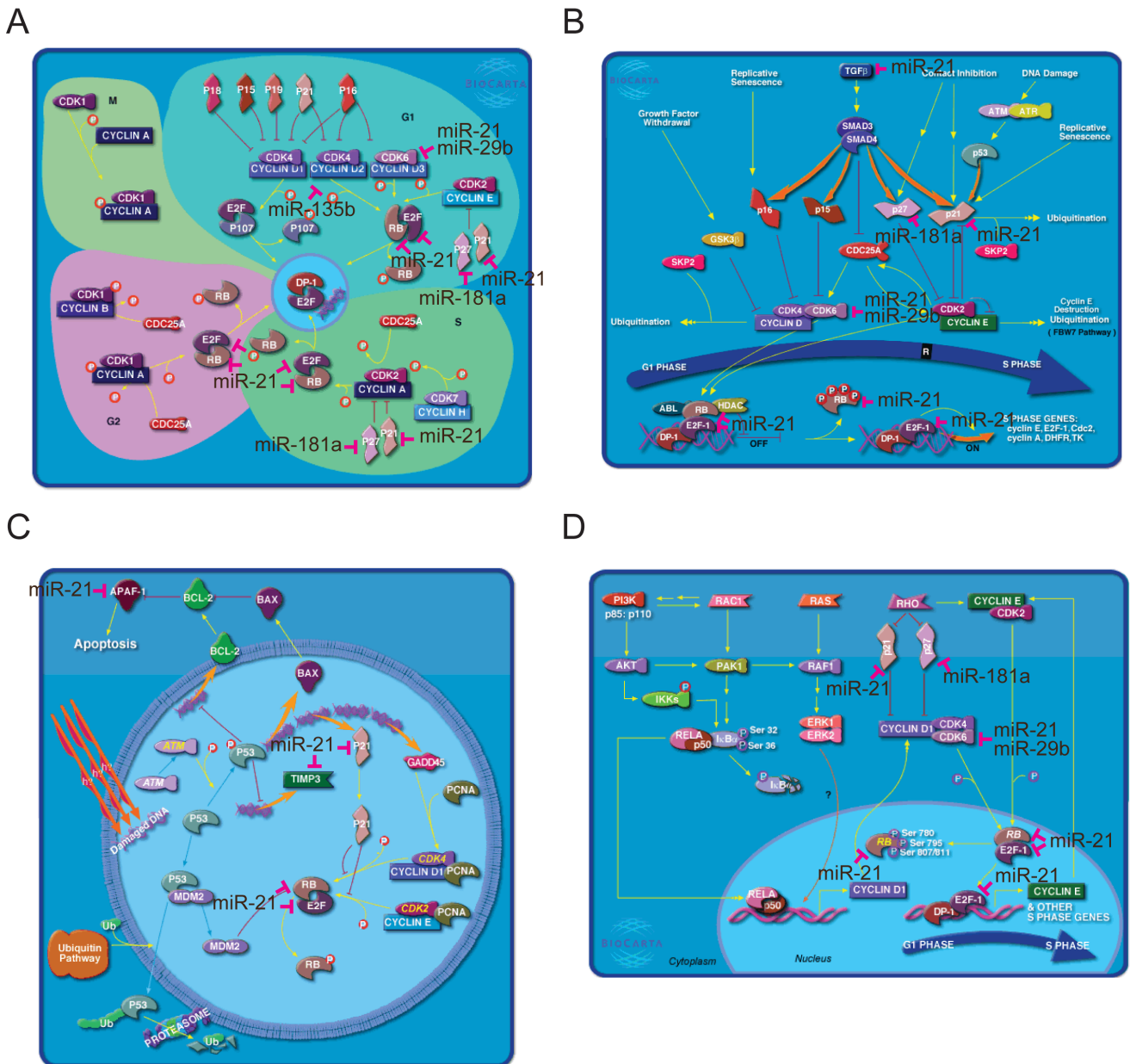


Figure S3-1. The CSC associated Biocarta pathways regulated by miRNAs identified in Figure 1B. A) CELLCYCLE, 2) G1, 3) P53, and 4) RACCYCD pathway.

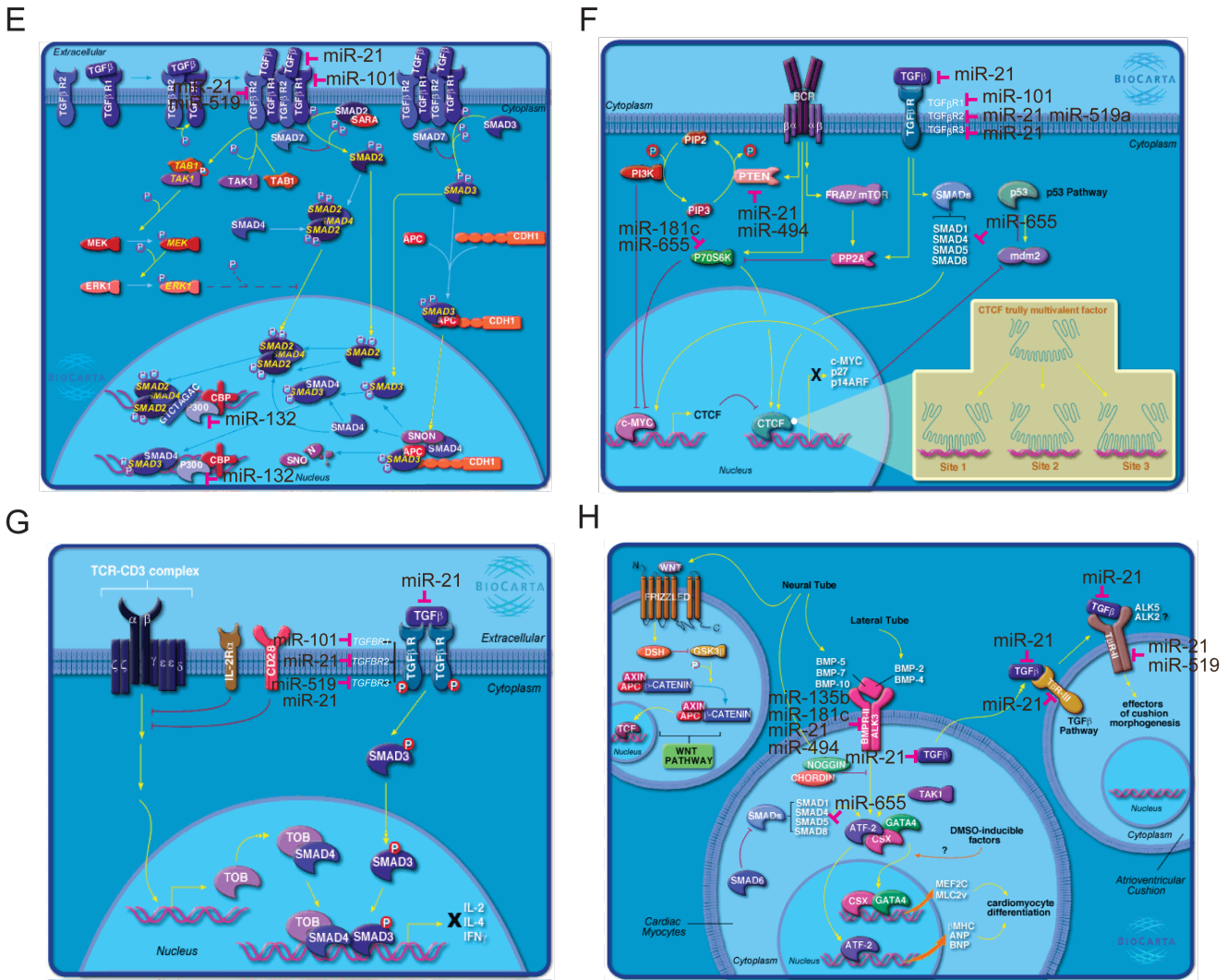


Figure S3-2. The CSC associated Biocarta pathways regulated by miRNAs identified in Figure 1B. E) CTCF, F) TOB1, G) ALK, and H) PTEN pathway.