

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Transcription Factor Screen results.

File Name: Supplementary Data 2

Description: Combination screen results.

File Name: Supplementary Data 3

Description: Annotated AJSZ ChIP-seq peaks.

File Name: Supplementary Data 4

Description: Open chromatin motifs.

File Name: Supplementary Data 5

Description: Open chromatin AJZ co-occupancy.

File Name: Supplementary Data 6

Description: AJZ open chromatin TSS and core promoter binding sites.

File Name: Supplementary Data 7

Description: Closed chromatin motifs.

File Name: Supplementary Data 8

Description: Closed AJS Co-occupancy.

File Name: Supplementary Data 9

Description: Differentiability accessible (open) chromatin at TSS for domain 2 and associated gene list and GO terms.

File Name: Supplementary Data 10

Description: domain 1 and 2 enriched TF binding motifs.

File Name: Supplementary Data 11

Description: List of genes associated with AJSZ binding (ChIP-seq) at core promoter regions.

File Name: Supplementary Data 12

Description: RNA-seq results.

File Name: Supplementary Data 13

Description: Differentially expressed genes bound by AJSZ (ChIP-seq) at core promoter regions.

File Name: Supplementary Data 14

Description: GO terms of differentially expressed genes bound by AJSZ at core promoter regions.

File Name: Supplementary Data 15

Description: Barriers screen results.

File Name: Supplementary Data 16

Description: Agonists screen results.

File Name: Supplementary Movie 1

Description: Movie showing calcium handling activity using Fluo-4 in reprogrammed iCMs at day 30 in MGT+siAJSZ condition.

File Name: Supplementary Movie 2

Description: Movie showing calcium handling activity using Fluo-4 in day 28 hPSC-CMs in siControl condition.

File Name: Supplementary Movie 3

Description: Movie showing calcium handling activity using Fluo-4 in day 28 hPSC-CMs in siAJSZ condition.