

## **Description of Additional Supplementary Files**

File Name: **Supplementary Data 1**

*Description:* Probe ID, chromosome, position, mapped gene(s) and regulatory region of 371 stemTOC CpGs.

File Name: **Supplementary Data 2**

*Description:* SampleID, TCGA cancer-type, age, normal/cancer status, mitotic age of the 7 mitotic clocks, and tumor purity estimates from ESTIMATE, ABSOLUTE, LUMP, IHC and CPE for all TCGA samples.

File Name: **Supplementary Data 3**

*Description:* SampleID, normal tissue-type, age group and mitotic age estimates of 7 mitotic clocks for eGTEX samples.

File Name: **Supplementary Data 4**

*Description:* Sample ID, cell-type and study, age and mitotic age estimates of 7 mitotic clocks for all sorted immune cells.

File Name: **Supplementary Data 5**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-BLCA samples. EC=endothelial cell, Epi=epithelial cell, Fib=fibroblast, IC=immune-cell.

File Name: **Supplementary Data 6**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-BRCA samples. EC=endothelial, Fib=fibroblast, Lym=lymphocyte, MP=macrophage.

File Name: **Supplementary Data 7**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-CHOL samples. Chol=cholangiocyte, EC=endothelial cell, Hep=hepatocyte, Kup=Kupffer Macrophage, Lym=lymphocyte.

File Name: **Supplementary Data 8**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-COAD samples. EC=endothelial cell, Epi=epithelial cell, Lym=lymphoid cell, Mye=myeloid cell.

File Name: **Supplementary Data 9**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-ESCA samples.. EC=endothelial cell, Epi=epithelial, Fib=fibroblast, Gland=glandular, IC=immune-cell.

File Name: **Supplementary Data 10**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-GBM samples. Oligo=oligodendrocytes, Astro=astrocytes, OPC=oligodendrocyte progenitor

cells, Endo=endothelial cell

File Name: **Supplementary Data 11**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-HNSC samples. Fib=fibroblast, Gland=glandular, Macro=macrophage, NeuIm=immature neuron, NeuMa= mature neuron, Peri=pericytes.

File Name: **Supplementary Data 12**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-KIRC samples. EC=endothelial cell, Epi=epithelial cell, Fib=fibroblast, IC=immune-cell.

File Name: **Supplementary Data 13**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-KIRP samples. EC=endothelial cell, Epi=epithelial cell, Fib=fibroblast, IC=immune-cell.

File Name: **Supplementary Data 14**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-LGG samples. Oligo=oligodendrocytes, Astro=astrocytes, OPC=oligodendrocyte progenitor cells, Endo=endothelial cell.

File Name: **Supplementary Data 15**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-LIHC samples. Chol=cholangiocyte, EC=endothelial cell, Hep=hepatocyte, Kup=Kupffer Macrophage, Lym=lymphocyte.

File Name: **Supplementary Data 16**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-LUAD samples. OthEpi=lung epithelial cells which are not alveolar or basal, Lym=lymphocytes, AlvEpi=Alveolar Epithelial, Neu=neutrophils, Neuendocrine=neuroendocrine, Basal=epithelial basal.

File Name: **Supplementary Data 17**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-LUSC samples. OthEpi=lung epithelial cells which are not alveolar or basal, Lym=lymphocytes, AlvEpi=Alveolar Epithelial, Neu=neutrophils, Neuendocrine=neuroendocrine, Basal=epithelial basal.

File Name: **Supplementary Data 18**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-PAAD samples. EC=endothelial cell, IC=immune-cell.

File Name: **Supplementary Data 19**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-PRAD samples. BE=basal epithelial, EC=endothelial cell, Fib=fibroblast, LE=luminal

epithelial, SM=smooth muscle.

File Name: **Supplementary Data 20**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-READ samples. EC=endothelial cell, Epi=epithelial cell, Lym=lymphocyte, Mye=myeloid cell.

File Name: **Supplementary Data 21**

*Description:* SampleID, EpiSCORE cell-type fraction estimates for TCGA-SKCM samples. EC=endothelial cell, Fib=fibroblast, Kera\_diff=differentiated keratinocyte, Kera\_undiff=undifferentiated keratinocyte, Macro=macrophage, Mela=melanocyte.