

## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: TF\_regulatory\_distance: Inferred TF regulatory distances using multiple expression cohorts.

File Name: Supplementary Data 2

Description: hg38\_H1\_TAD\_mean\_H3K27ac.txt\_normalized: Mean H3K27ac level in TADs across multiple cell types and tissues.

File Name: Supplementary Data 3

Description: TAD\_cluster\_annotation: Coordinates and cluster assignment of TADs.

File Name: Supplementary Data 4

Description: TAD\_cluster\_GO: Gene ontologies of genes in TAD clusters.

File Name: Supplementary Data 5

Description: Unnormalized\_TF\_occupancy\_in\_TADs: TF CHIP-seq peak densities in TADs.

File Name: Supplementary Data 6

Description: TF\_target\_TAD\_cluster\_GO: Gene ontologies of genes in TF-target TADs.

File Name: Supplementary Data 7

Description: Pioneer\_like\_factors: Inferred TFs with or without pioneer factor-like properties.