

## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: Pathway analysis and differential expression analysis results of senescent cells compared to not senescent cells.

File Name: Supplementary Data 2

Description: Differential expression analysis results of different senescent clusters.

File Name: Supplementary Data 3

Description: Pathway analysis of senescent cells classified based on Bcl2 and Mcl1 expression.

File Name: Supplementary Data 4

Description: Statistic results for main and supplementary figures.

File Name: Supplementary Data 5

Description: R code for Senescence Index tool (SIT).