

Supplementary Figure S1. ADSCs expressed typical surface markers of mesenchymal stem cells. A) Surface markers of ADSCs were determined using an LSR II flow cytometer. B) Lineage differentiation assays of ADSCs were examined using Oil Red O (adipogenesis), Alizarin Red S (osteogenesis) and Alcian blue (chondrogenesis) staining, respectively. Magnification: ×200.



Supplementary Figure S2. DMEM and Fresh K-Medium resulted in no significant difference on cell death in both MDA-MB231 and M10/H184B5F5 cells. MDA-MB231 and M10/H184B5F5 cells were cultured with either DMEM or Fresh K-Medium (FM) for 72 h before harvest, and the sub-G1 population was analyzed using flow cytometry. Bar graphs indicate the cell distribution in sub-G1 of the cell cycle. The values represent the means of three independent experiments ± s.d. \*p < 0.05 compared with control.



Supplementary Figure S3. ADSC-derived conditioned medium (CM) enhanced apoptosis in MDA-MB468 breast cancer cells. A) Cell proliferation and viability of MDA-MB468 cells were examined using the MTT assay.  $1\times10^5$  cells were cultured with control or ADSC-CM as indicated concentrations for 72 h. B) MDA-MB468 cells were cultured with control culture medium or conditioned K-medium (CM) for 72 h before harvest, and the cell cycle distribution was analyzed using flow cytometry. In each panel, cell cycle profiles were presented together with bar graphs, indicating the cell distribution in each phase of the cell cycle. The values represent the means of three independent experiments  $\pm$  s.d. \*p < 0.05 compared with control.