**Supplementary materials**

**Supplement Figure 1 The mRNA expressions of the 16 selected secreted proteins in the TCGA dataset, including** **515 LUAD patients (277 stage I, 125 stage II, 85 stage III, and 28 stage IV) and 59 normal controls.** All the proteins were upregulated in the mRNA levels in the stage IA LUAD patients (p<0.0001).

**Supplement Figure 2 The protein expressions of the 16 selected secreted proteins in the CPTAC dataset, including 111 LUAD patients (59 stage I, 30 stage II, 21 stage III, and 1 stage IV) and 11 normal controls.** All the proteins were upregulated in the stage I LUAD patients (p<0.0001).

**Supplementary Figure 3** Full-length gels of MDK, WFDC2 and CXCL14 expressions in A549 cells.