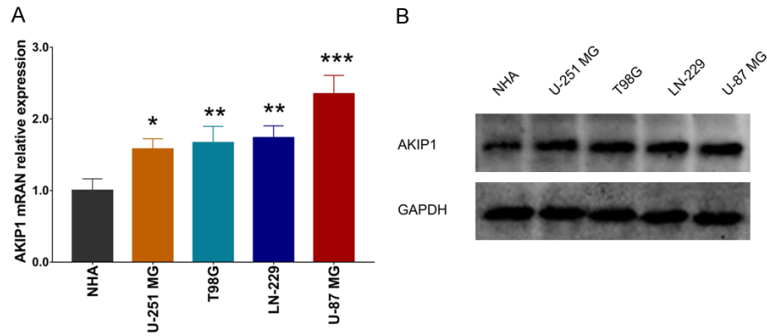
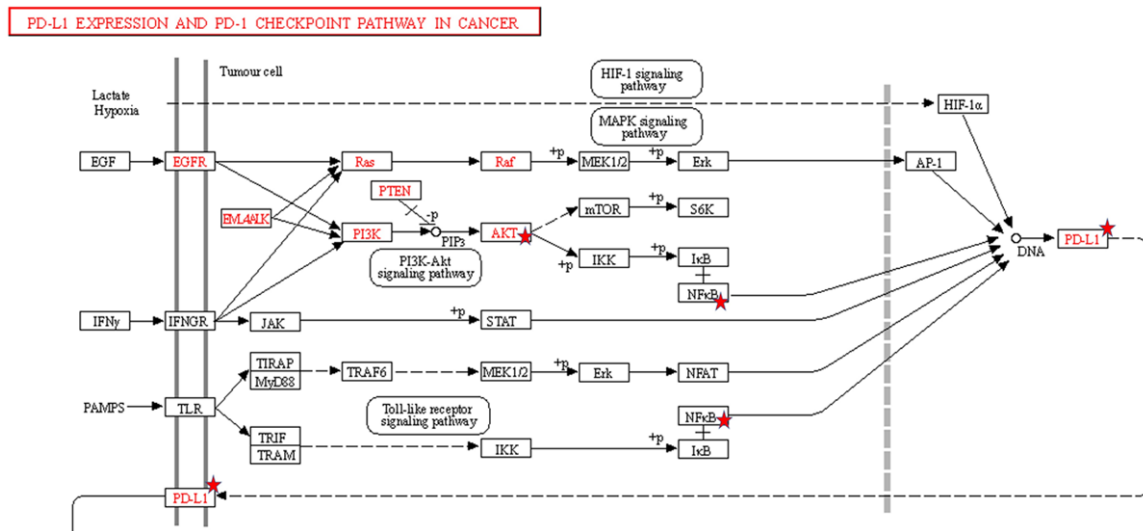


AKIP1, CXCL1, CXCL2 and CXCL8 in glioblastoma



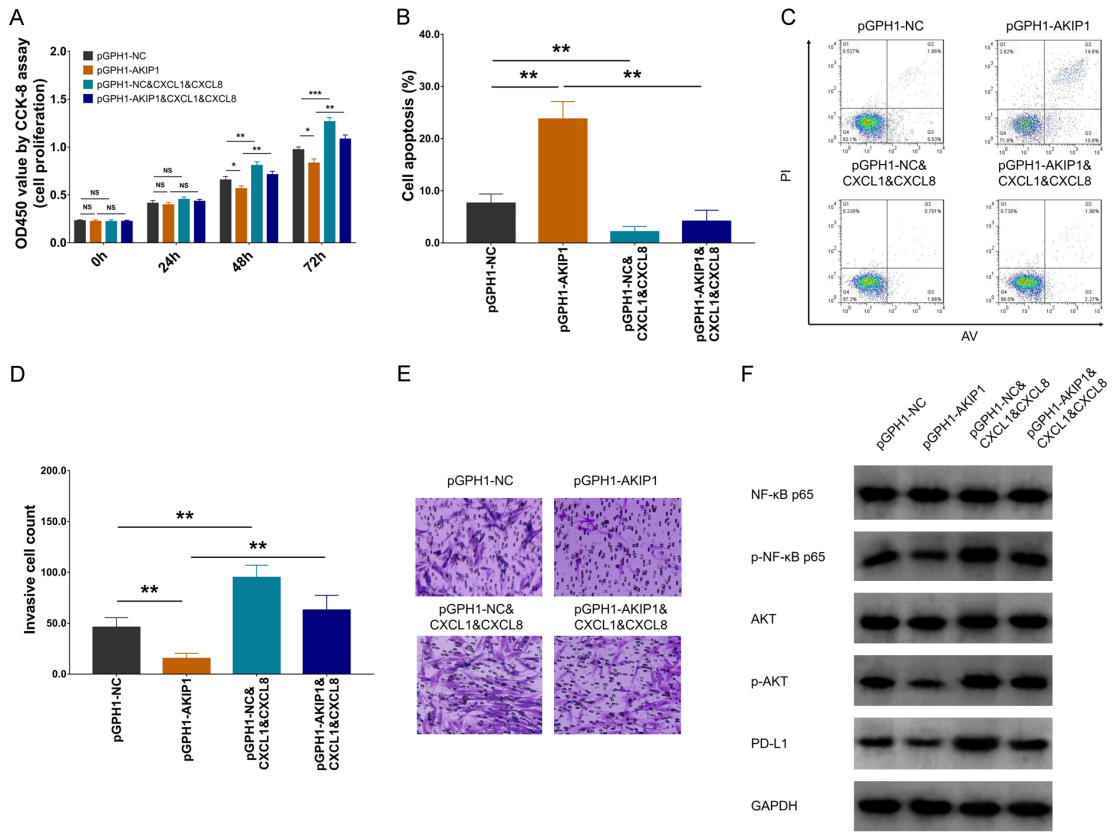
Supplementary Figure 1. AKIP1 expression in GBM cell lines. AKIP1 mRNA expression (A) and protein expression (B) between GBM cell lines and NHA cells (control cell line). AKIP1, A-kinase-interacting protein 1; GBM, glioblastoma multiforme.



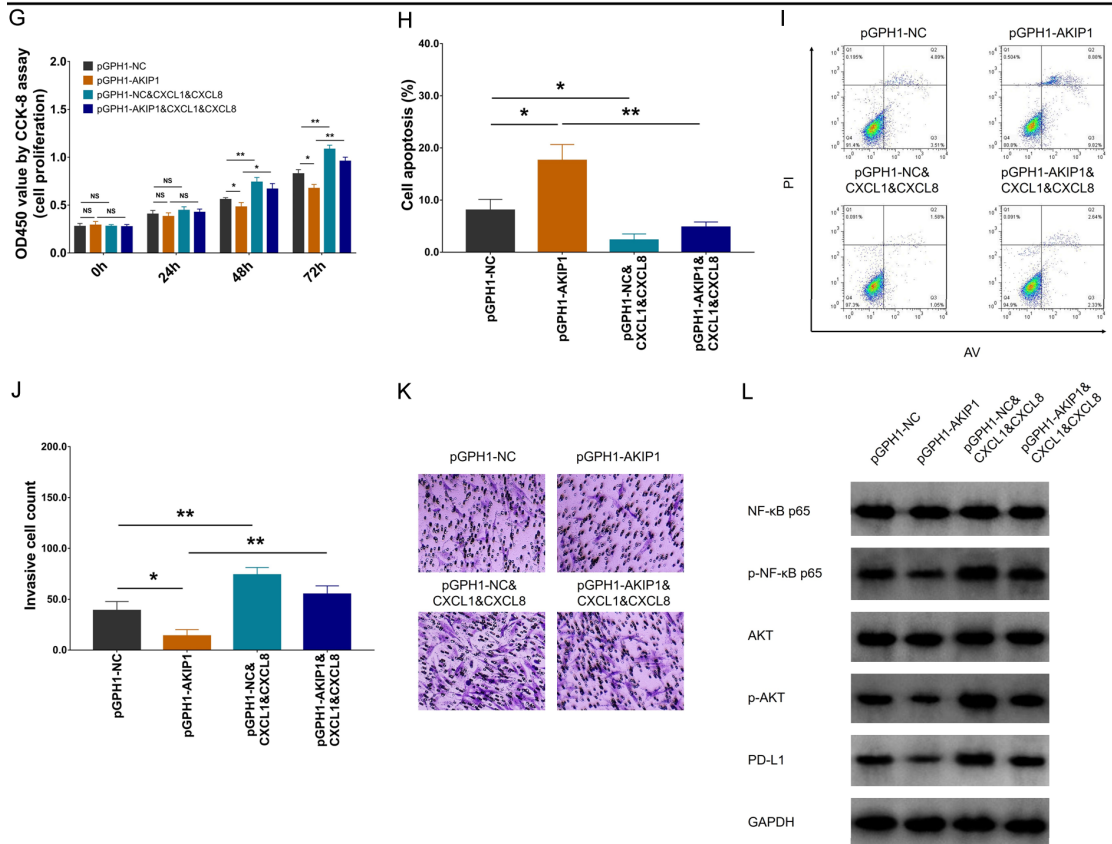
Supplementary Figure 2. Interaction between NF- κ B/AKT and PD-L1 expression in cancer from Kyoto Encyclopedia of Genes and Genomes (KEGG) database (<https://www.kegg.jp/>). The red stars represented the NF- κ B, AKT or PD-L1 in this regulation network.

AKIP1, CXCL1, CXCL2 and CXCL8 in glioblastoma

U-87 MG cells

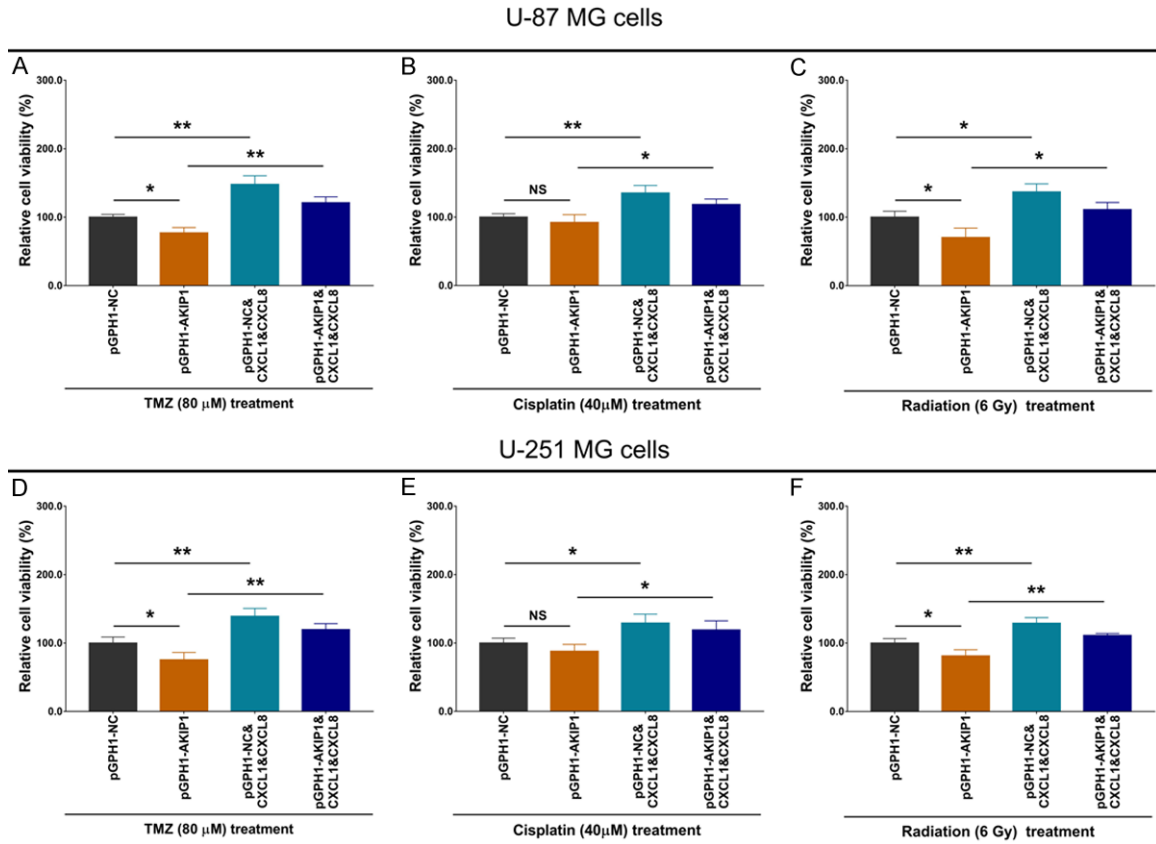


U-251 MG cells



AKIP1, CXCL1, CXCL2 and CXCL8 in glioblastoma

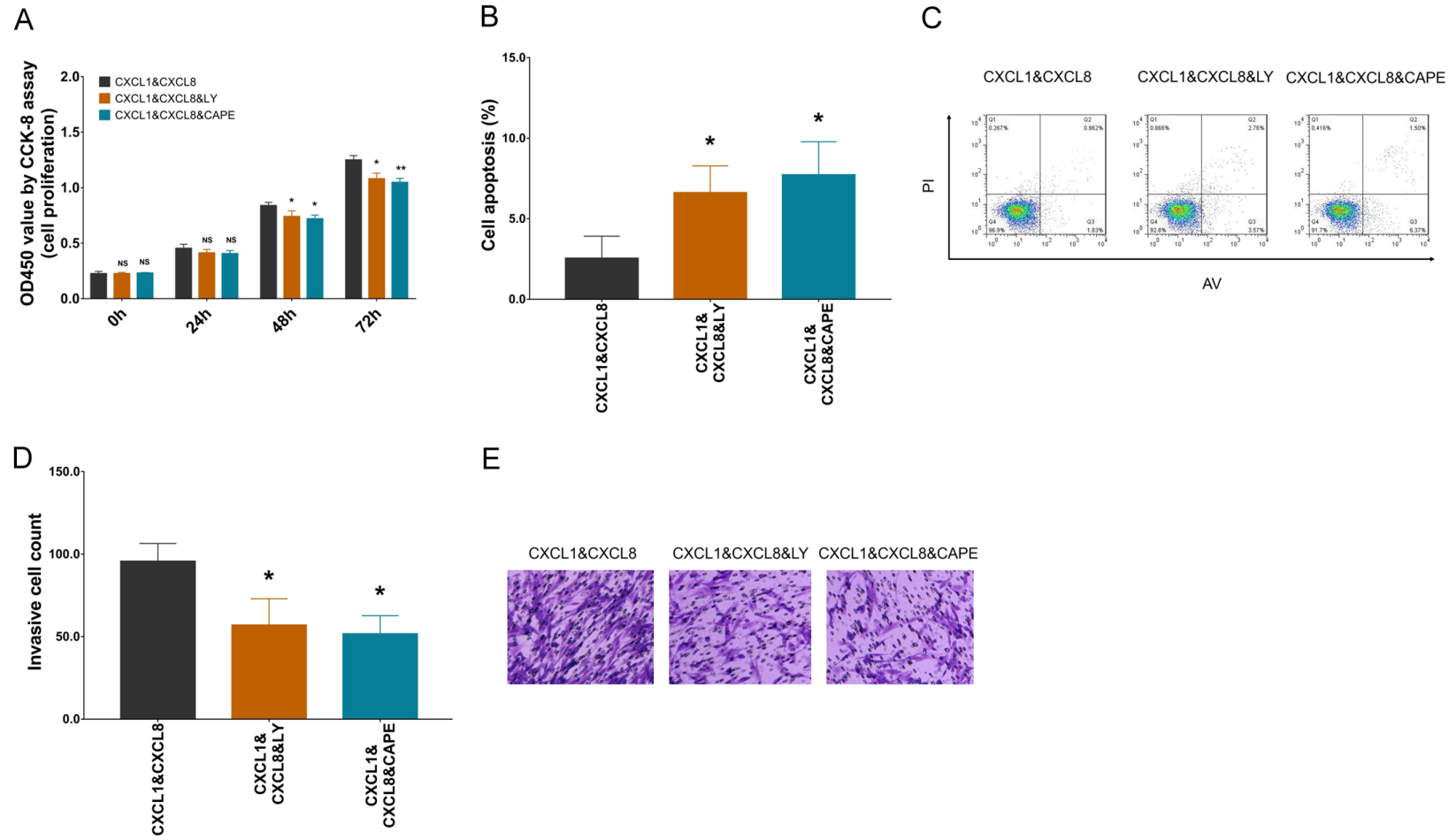
Supplementary Figure 3. CXCL1&CXCL8 attenuated the effect of AKIP1 knockdown on GBM malignant behaviors. Cell proliferation, apoptosis and invasion, as well as NF- κ B p65, p-NF- κ B p65, AKT, p-AKT, PD-L1 expressions among groups in U-87 MG cells (A-F) and U-251 MG cells (G-L), respectively. AKIP1, A-kinase-interacting protein 1; CXCL, C-X-C motif chemokine ligand; GBM, glioblastoma multiforme.



Supplementary Figure 4. CXCL1&CXCL8 attenuated the effect of AKIP1 knockdown on Chemoradiation sensitivity. Relative cell viability under 80 μ M TMZ treatment, or 40 μ M cisplatin treatment, or 6 Gy radiation treatment among groups in U-87 MG cells (A-C) and U-251 MG cells (D-F), respectively. AKIP1, A-kinase-interacting protein 1; NC, negative control; CXCL, C-X-C motif chemokine ligand; TMZ, temozolomide.

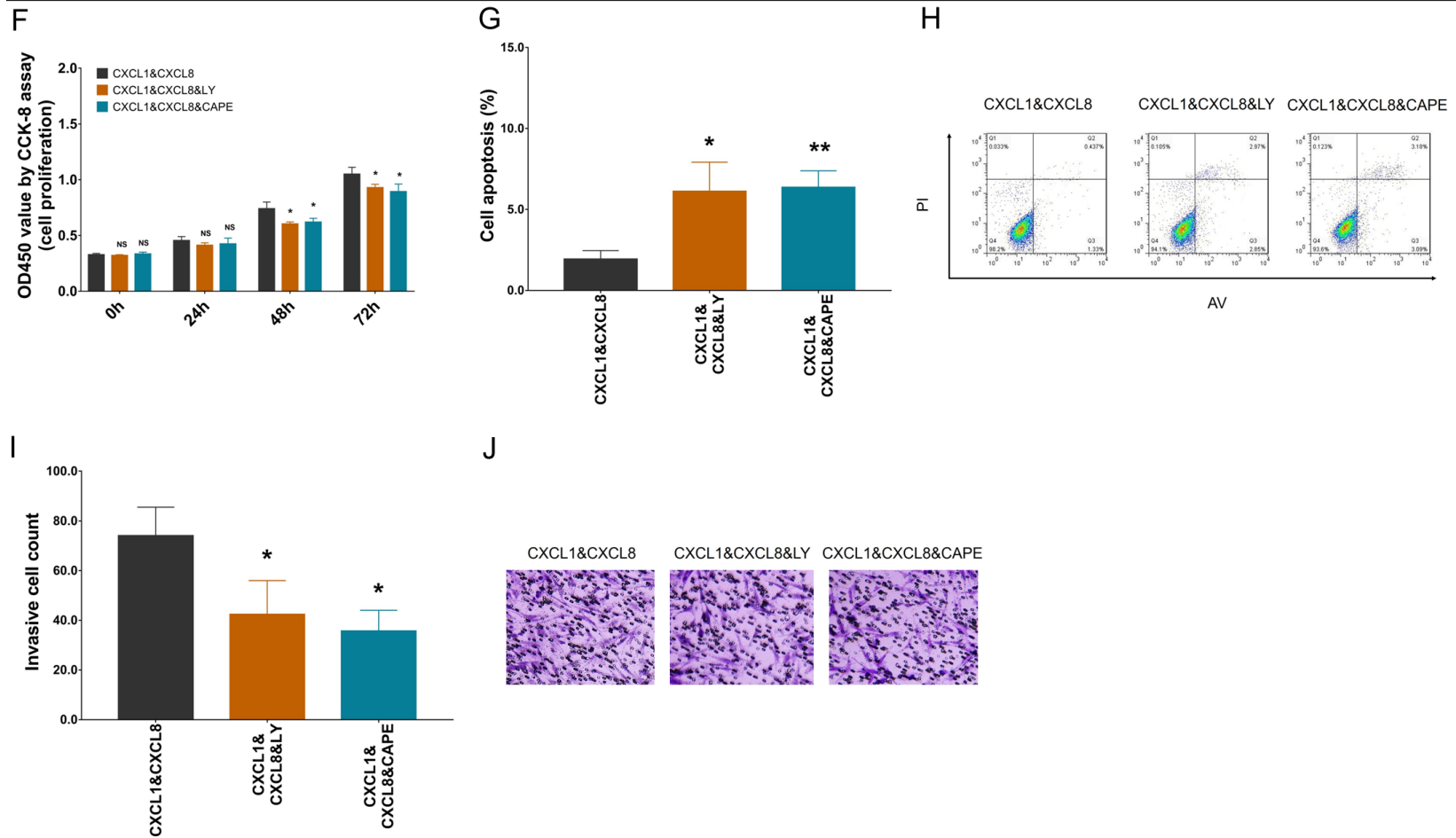
AKIP1, CXCL1, CXCL2 and CXCL8 in glioblastoma

U-87 MG cells



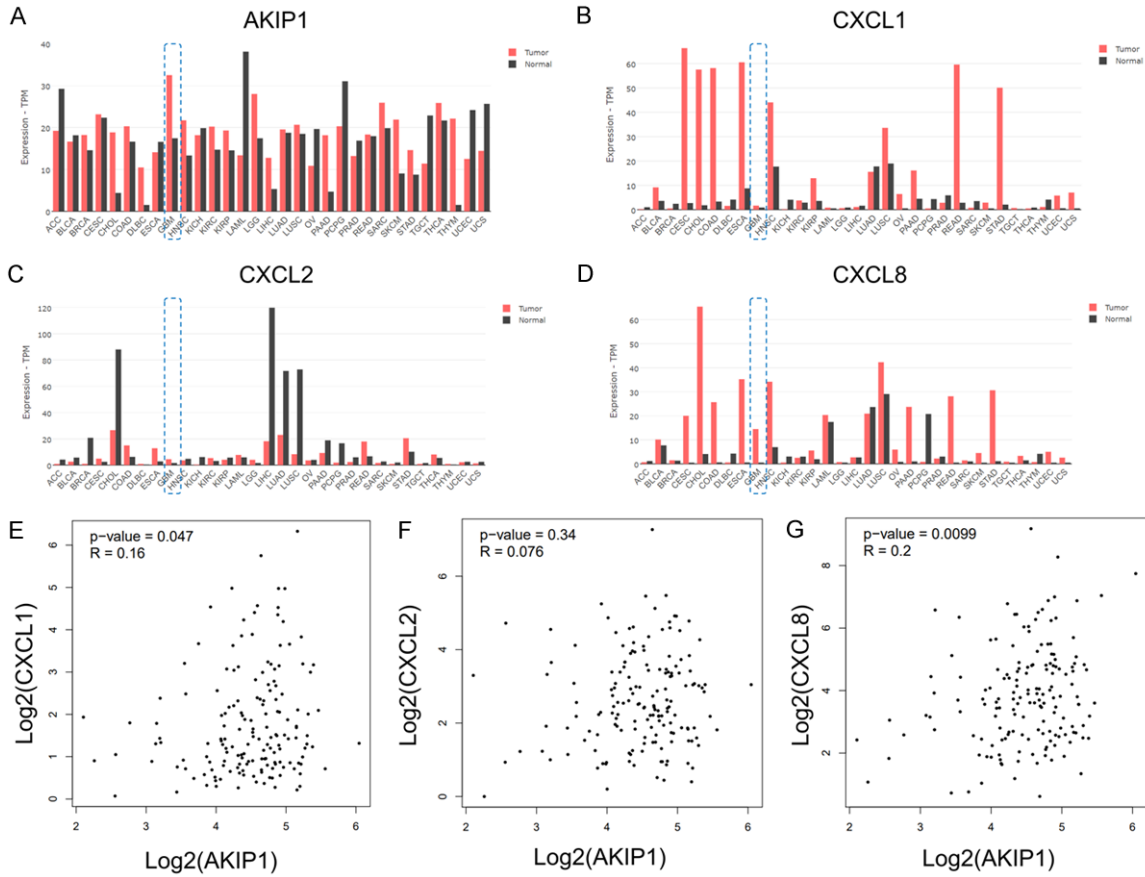
AKIP1, CXCL1, CXCL2 and CXCL8 in glioblastoma

U-251 MG cells



Supplementary Figure 5. NF- κ B pathway inhibitor and AKT pathway inhibitor impaired the effect of CXCL1&CXCL8 on GBM malignant behaviors. Cell proliferation, apoptosis and invasion among groups in U-87 MG cells (A-E) and U-251 MG cells (F-J), respectively. CXCL, C-X-C motif chemokine ligand; GBM, glioblastoma multiforme.

AKIP1, CXCL1, CXCL2 and CXCL8 in glioblastoma



Supplementary Figure 6. AKIP1, CXCL1/2/8 expressions via GEPIA database. AKIP1 (A), CXCL1 (B), CXCL2 (C) and CXCL8 (D) expressions in tumor tissue compared to non-tumor tissue in cancers including GBM. Correlation of AKIP1 with CXCL1 (E), CXCL2 (F) and CXCL8 (G) in tumor tissue of GBM. AKIP1, A-kinase-interacting protein 1; CXCL, C-X-C motif chemokine ligand; GBM, glioblastoma multiforme.