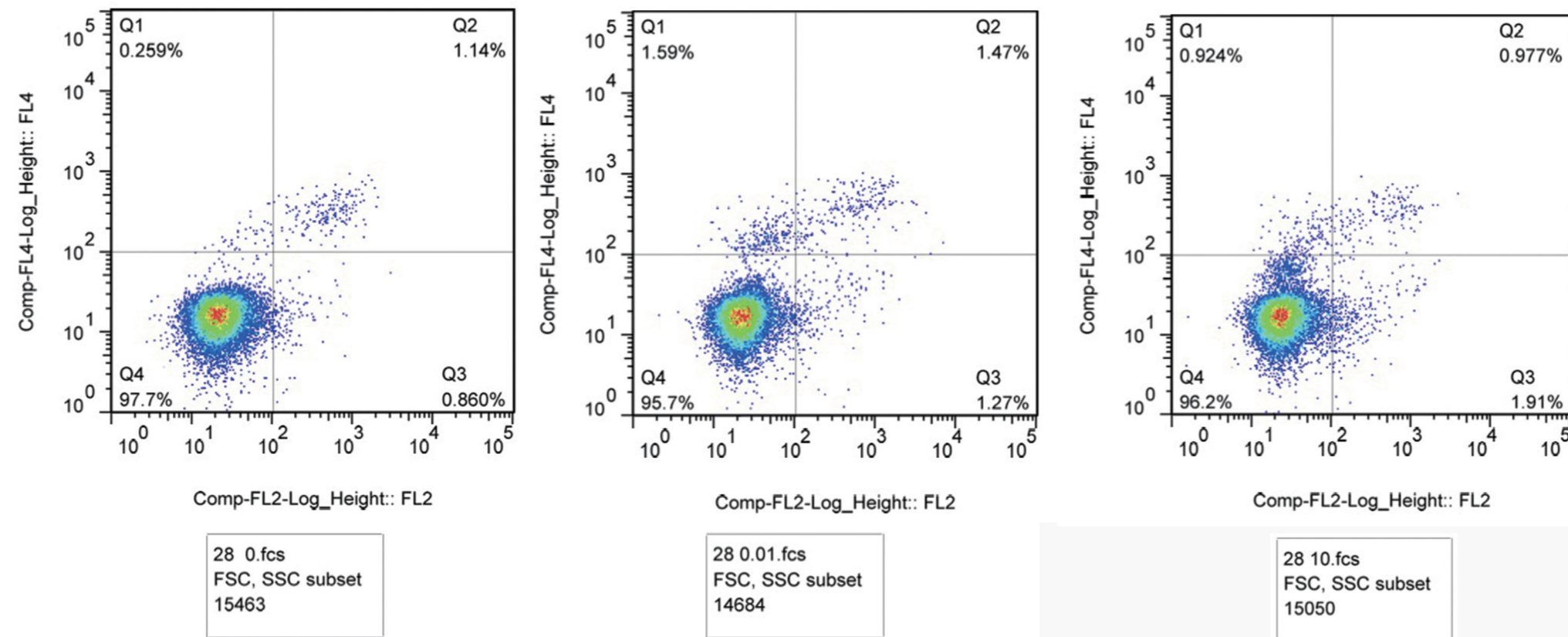
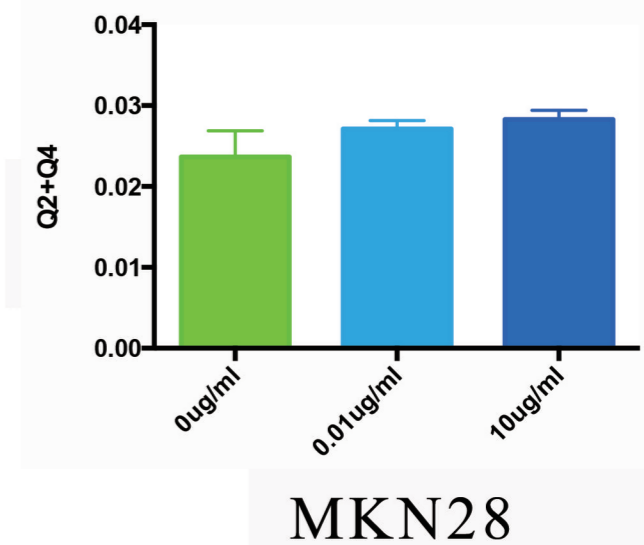


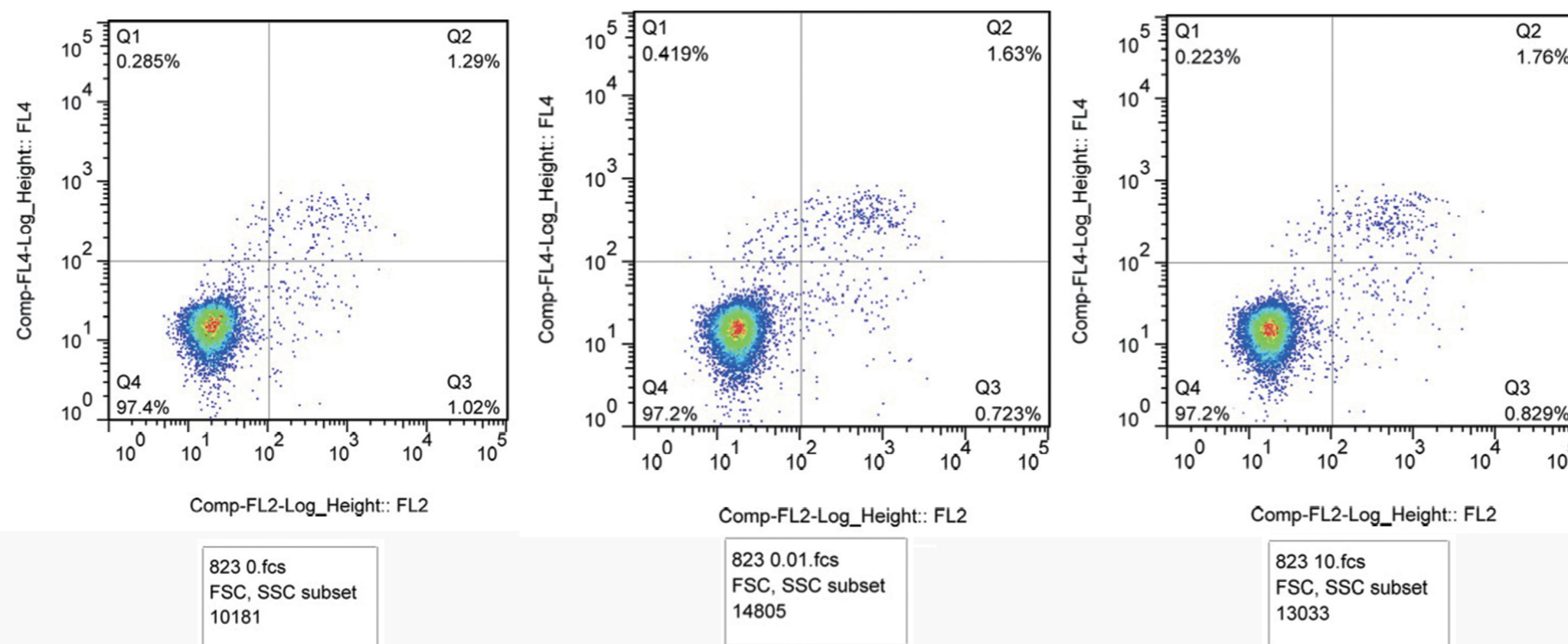
a



b



c



d

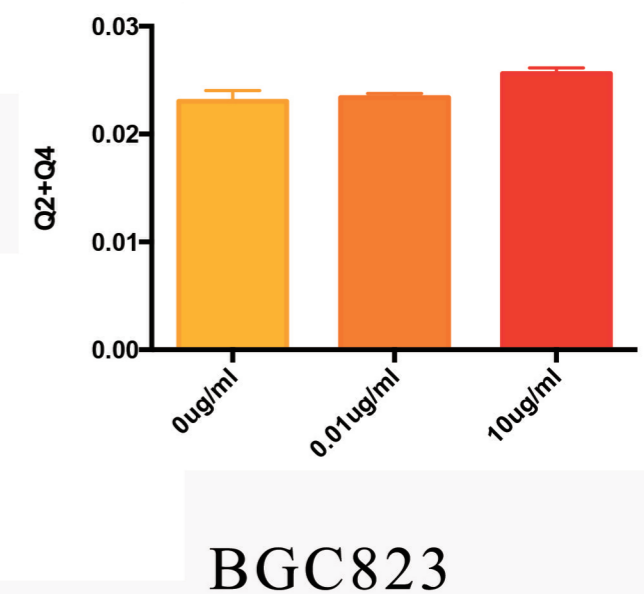


Figure S2. Flow cytometry was used to analyze apoptosis in gastric cancer cells that were co-cultured with CNPs. (a) Flow cytometry was used to analyze apoptosis in MKN28 cells that were co-cultured with different concentrations of CNPs (0 µg/ml, 0.01 µg/ml and 10 µg/ml). (b) Analysis of the addition of Q2 and Q4 to MKN28 cells in different groups. (c) Flow cytometry was used to analyze apoptosis in BGC823 cells that were co-cultured with different concentrations of CNPs (0 µg/ml, 0.01 µg/ml and 10 µg/ml). (d) Analysis of the addition of Q2 and Q4 to BGC823 cells in different groups. Each data point represents the mean ± standard deviation (n=3).

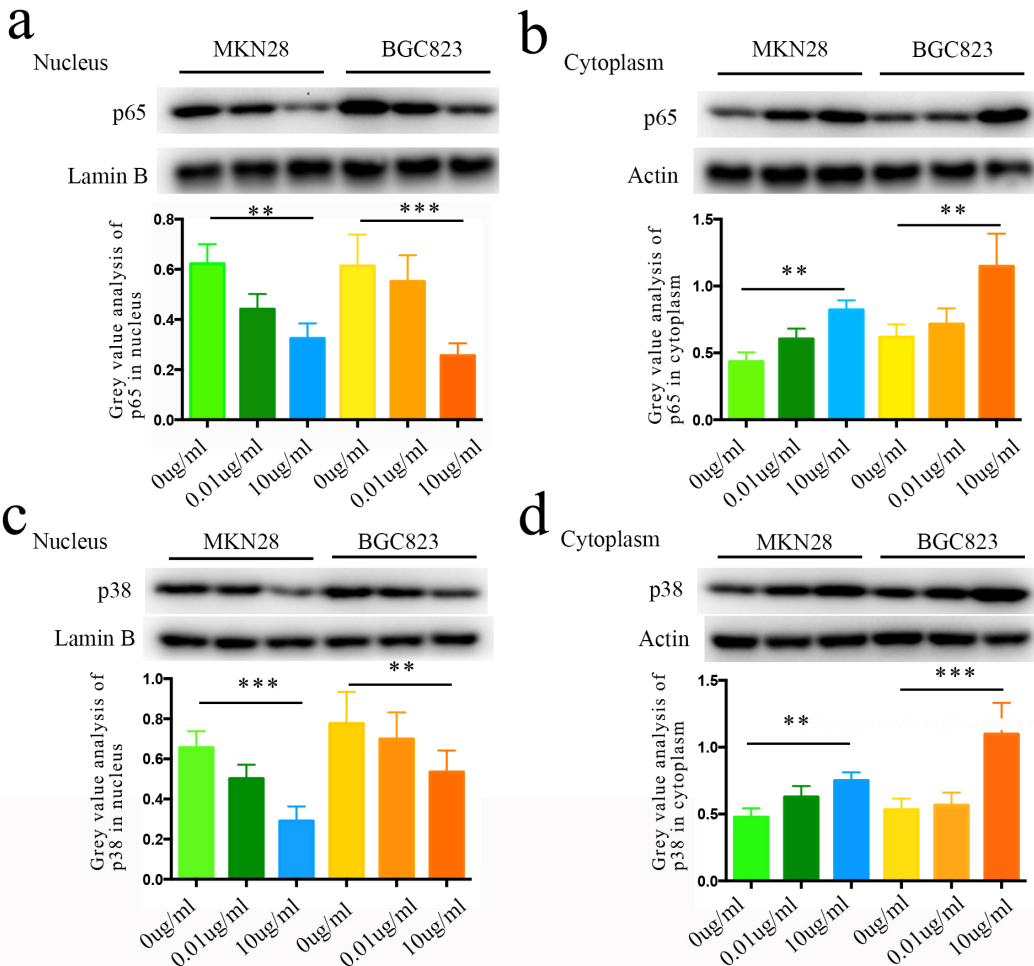


Figure S3. The translocation of p65 and p38 in gastric cancer cells that were co-cultured with CNPs. (a & b) The expression of p65 in the nucleus and cytoplasm, after co-cultured with different concentrations of CNPs. (c & d) The expression of p38 in the nucleus and cytoplasm, after co-cultured with different concentrations of CNP. Each data point represents the mean \pm standard deviation (n=3). ** P<0.01, compared with 0 μ g/ml group, ***P<0.001, compared with 0 μ g/ml group.

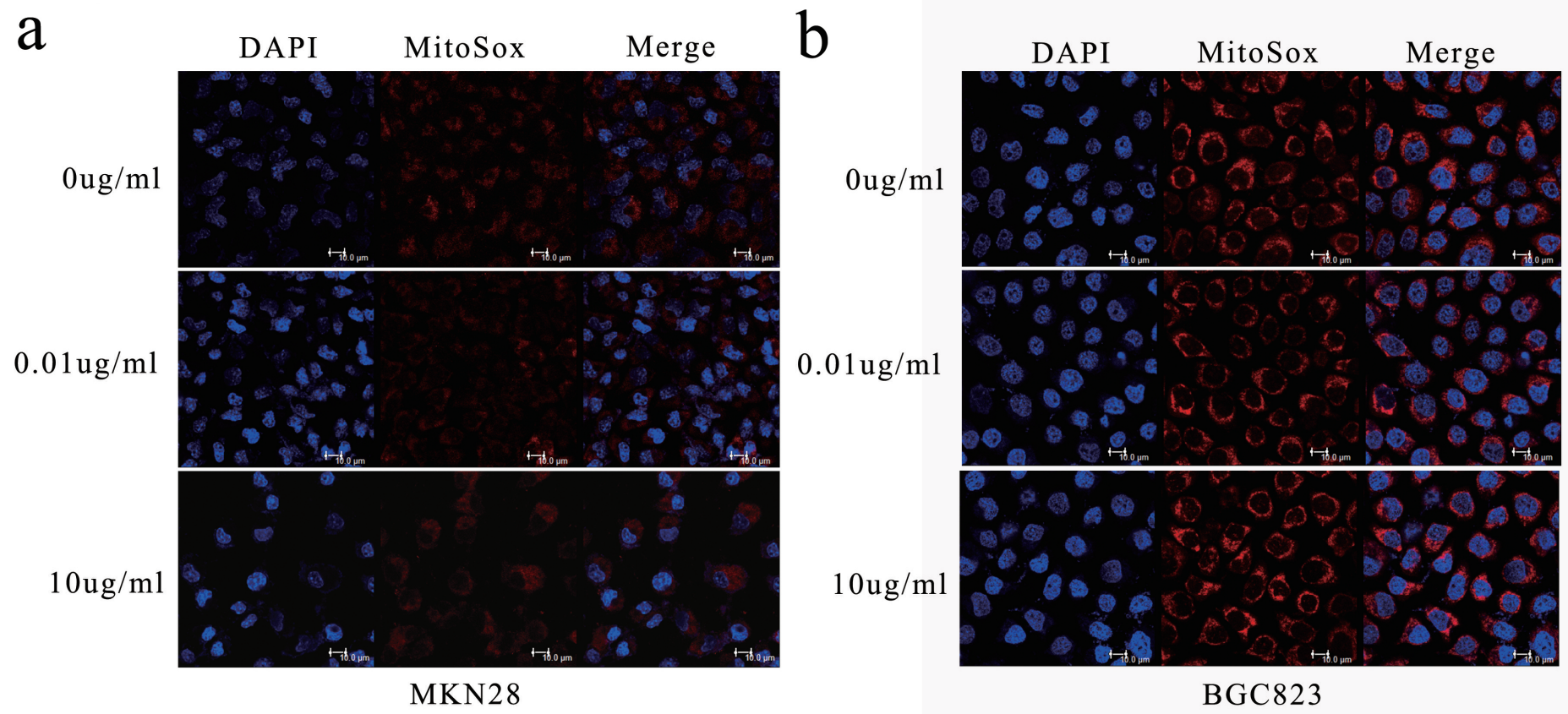
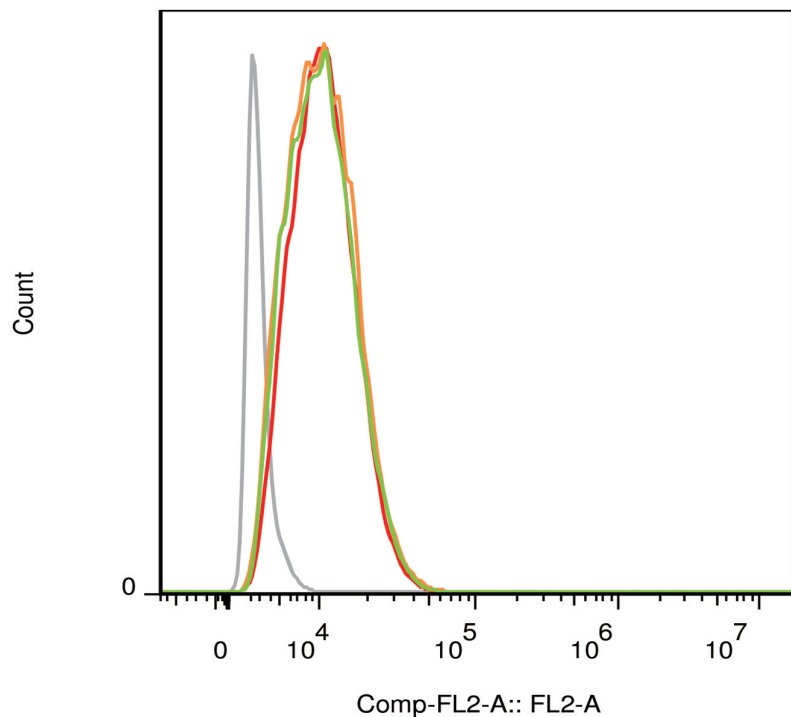


Figure S4. Immunofluorescence for ROS in gastric cancer cells that were co-cultured with CNPs.

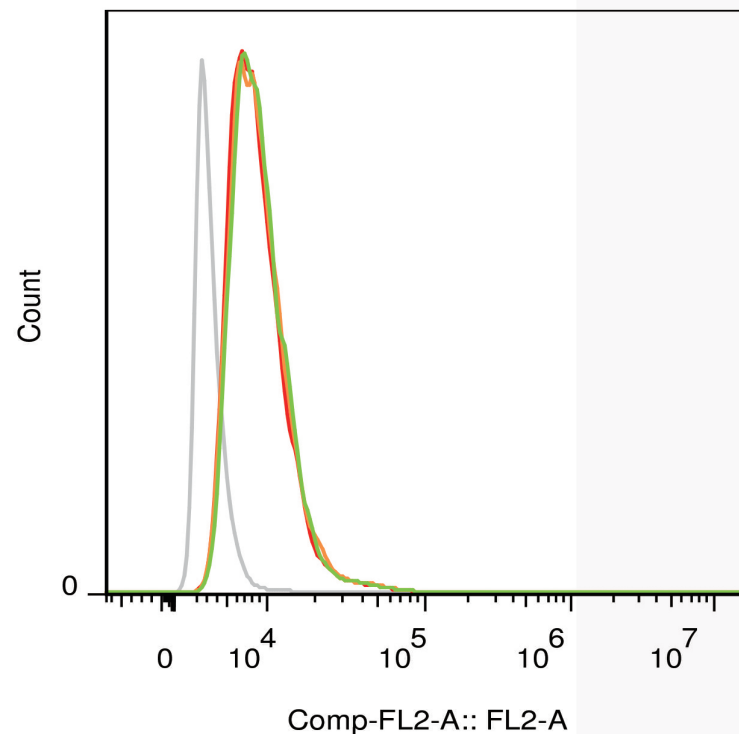
(a) ROS levels were detected in MKN28 cells that were co-cultured with different concentrations of CNPs (0 $\mu\text{g/ml}$, 0.01 $\mu\text{g/ml}$ and 10 $\mu\text{g/ml}$) using MitoSOX[™] Red Mitochondrial Superoxide Indicator. Each data point represents the mean \pm standard deviation (n=3). (b) ROS levels were detected in BGC823 cells that were co-cultured with different concentrations of CNPs (0 $\mu\text{g/ml}$, 0.01 $\mu\text{g/ml}$ and 10 $\mu\text{g/ml}$) using MitoSOX[™] Red Mitochondrial Superoxide Indicator. Each data point represents the mean \pm standard deviation (n=3).

a



— MKN28-Negative Control
 — MKN28-0ug/ml
 — MKN28-0.01ug/ml
 — MKN28-10ug/ml

b



— BGC823-Negative Control
 — BGC823-0ug/ml
 — BGC823-0.01ug/ml
 — BGC823-10ug/ml

Figure S5. Flow cytometry for ROS in gastric cancer cells that were co-cultured with CNPs.

(a) ROS levels were detected in MKN28 cells that were co-cultured with CNPs (0 $\mu\text{g/ml}$, 0.01 $\mu\text{g/ml}$ and 10 $\mu\text{g/ml}$) using flow cytometry. In the negative controls, MKN28 cells that were not co-cultured with CNPs were analyzed using MitoSOX[™] Red Mitochondrial Superoxide Indicator. Each data point represents the mean \pm standard deviation (n=3). (b) ROS levels were detected in BGC823 cells that were co-cultured with CNPs (0 $\mu\text{g/ml}$, 0.01 $\mu\text{g/ml}$ and 10 $\mu\text{g/ml}$) using flow cytometry. In the negative controls, MKN28 cells that were not co-cultured with CNPs were analyzed using MitoSOX[™] Red Mitochondrial Superoxide Indicator. Each data point represents the mean \pm standard deviation (n=3).

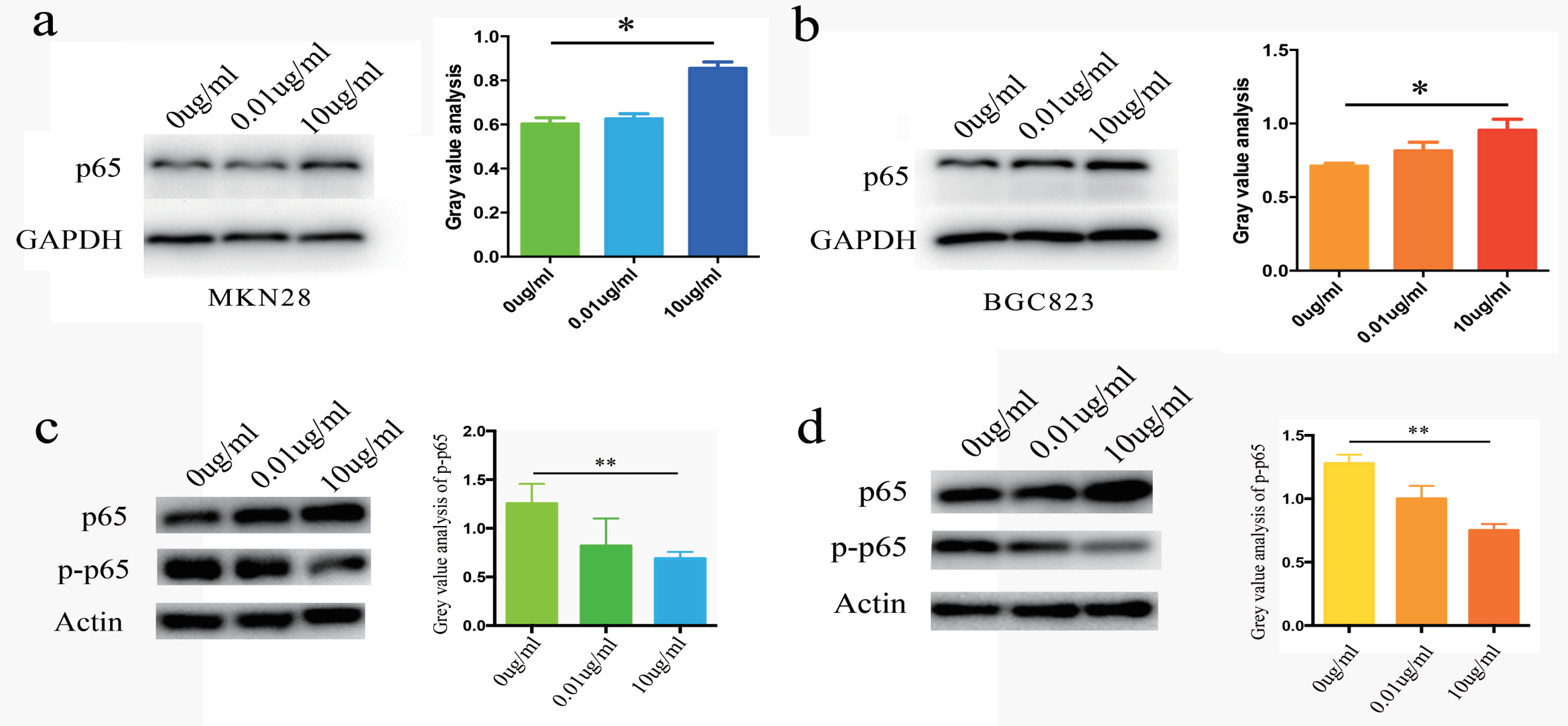
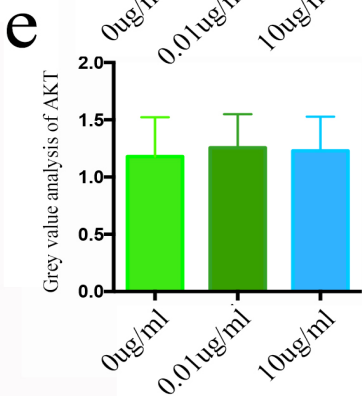
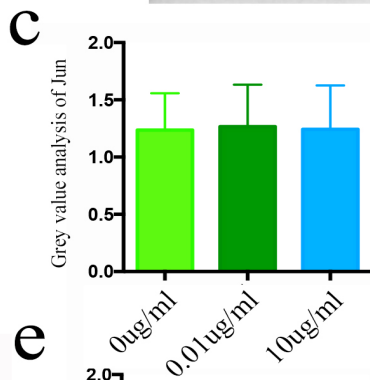
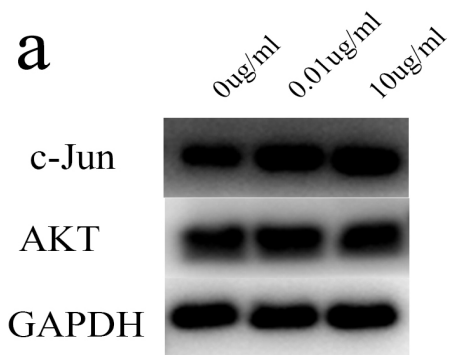


Figure S6. The expression of p65 in gastric cancer cells after the cells were co-cultured with different concentrations of CNPs.

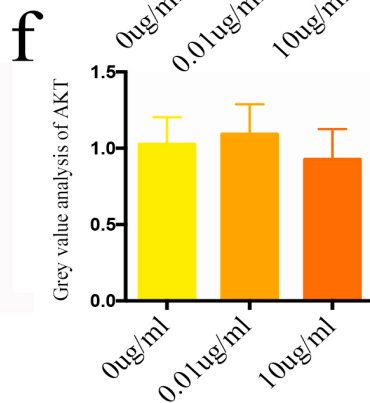
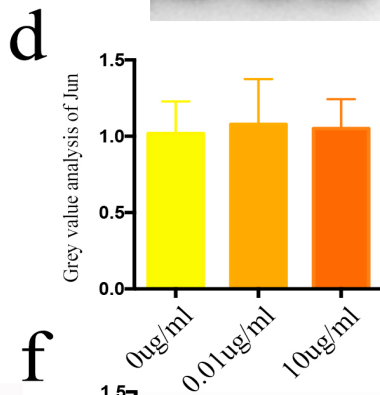
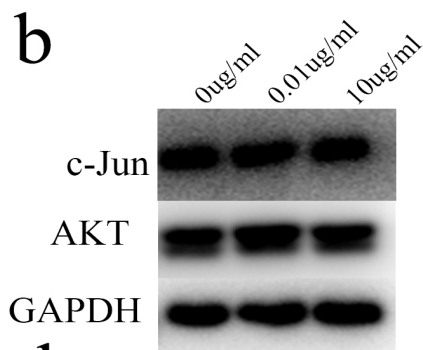
(a) Western blot assays show the expression levels of p65 in MKN28 cells. A gray value analysis shows each value of the blot. * $P < 0.05$, compared to the 0 $\mu\text{g/ml}$ group. (b)

Western blot assays show the expression levels of p65 in BGC823 cells. A gray value analysis shows each value of the blot. * $P < 0.05$, compared to the 0 $\mu\text{g/ml}$ group.

Each data point represents the mean \pm standard deviation ($n=3$).



MKN28 group



BGC823 group

Figure S7. The expression of AKT and c-Jun in the gastric cancer cells that were co-cultured with CNPs. (a, c & e) The expression of c-Jun and AKT in the MKN28 group. (b, d & f) The expression of c-Jun and AKT in the BGC823 group.