

Supplementary Figure 1. Down-regulation of OGT has no effect on cell proliferation and apoptosis. (A): A2780 and SKOV3 were transfected with control or *OGT* shRNA to establish stable OGT-deficient cell lines. Control and OGT-deficient cell were cultured for 48 h and then the cell viability were measured by CCK-8. (B): Control and OGT-deficient cells were cultured for 24 h. Apoptotic cells were measured by ANXA5 and PI staining. The number is shown as the sum of ANXA5-positive and double-positive cells.



Supplementary Figure 2. Down-regulation of OGT promotes autophagy in ovarian cancer cell. (A): The expression levels of LC3 and p62 were tested in control and OGT-deficient ovarian cancer cells by western blotting. (B): The LC3 puncta were detected by anti-LC3 in control and OGT-deficient ovarian cancer cells through fluorescence microscope. Scale bar represent 50 μ m. The values are presented as a mean \pm SD (n = 3). *P < 0.01, P < 0.05. (C): The control and OGT-deficient ovarian cancer cells were transfected with mRFP-GFP-LC3 vector for 48 h. Representative images of fluorescent LC3 puncta are shown. The mean number of yellow puncta represented autophagosome and the mean number of red puncta represented autolysosome were showed in the left statistical graph. Scale bar represent 10 μ m. *P < 0.01 compared with Con sh group.



Supplementary Figure 3. 3-MA and Baf inhibit cell autophagy in different ways. (A): A2780 and SKOV3 were transfected with control or *OGT* shRNA to establish stable OGT-deficient cell lines. OGT-deficient cell were treated with DMSO, 3-MA (3 mM) or Baf (200 nM) for 48 h and then the cell viability were measured by CCK-8. (B): OGT-deficient cells were treated with DMSO, 3-MA (3 mM) or Baf (200 nM) for 24 h. Apoptotic cells were measured by ANXA5 and PI staining. The number is shown as the sum of ANXA5-positive and double-positive cells. (C): The OGT-deficient ovarian cancer cells were transfected with mRFP-GFP-LC3 vector for 24 h and then treated with DMSO, 3-MA (3 mM) or Baf (200 nM) for 24 h. Representative images of fluorescent LC3 puncta are shown. The mean number of yellow puncta represented autophagosome and the mean number of red puncta represented autolysosome were showed in the left statistical graph. Scale bar represent 10 μ m. **P* < 0.05 compared with *OGT* sh group.