Induction of autophagy and autophagy-dependent apoptosis in Diffuse large B-cell lymphoma by a new anti-malarial artemisinin derivative, SM1044

Additional Files

Supplementary Figure 1 Inhibitory effect of SM1044 on SU-DHL-4 cells. (**A**) SU-DHL-4 cells were treated with the indicated concentrations of SM1044 for 24 h. The proportions of cells at each phase of the cell cycle were determined by flow cytometry (mean±S.E.M, n=3). (**B**) SU-DHL-4 cells were treated with the indicated concentrations of SM1044 for 24 h. Mitochondrial membrane potential (MMP) was measured by flow cytometry (mean±S.E.M, n=3). ** $p<0.01$, *** $p<0.001$.

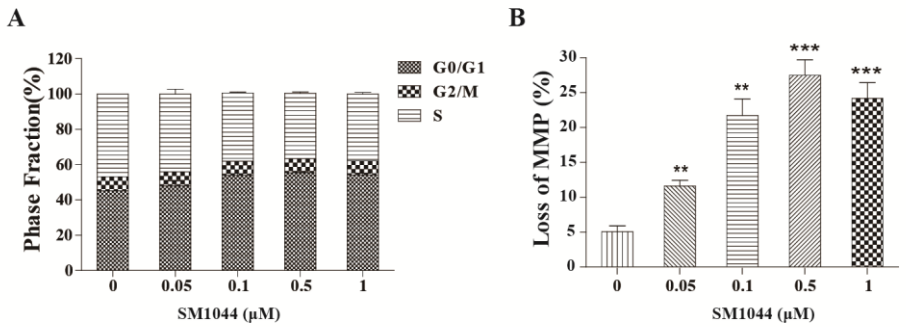
Supplementary Figure 2 Autophagy is induced prior to apoptosis by SM1044. SU-DHL-4 cells were treated with the indicated concentrations of SM1044 for 6 h or 24 h, respectively. Representative electron microscopy photomicrographs are shown. The green triangles indicate autophagosome, the yellow triangles indicate autolysosome and the red arrows point to the apoptosis bodies.

Supplementary Figure 3 Autophagy inhibitors reverse the inhibitory effect of SM1044 in SU-DHL-4 cells. SU-DHL-4 cells were pre-treated with CQ or Baf A1 for 1 h, followed by SM1044 treatment for another 24 h. Cell viability was measured by CCK-8 (mean±S.E.M, n=3). *** $p<0.001$.

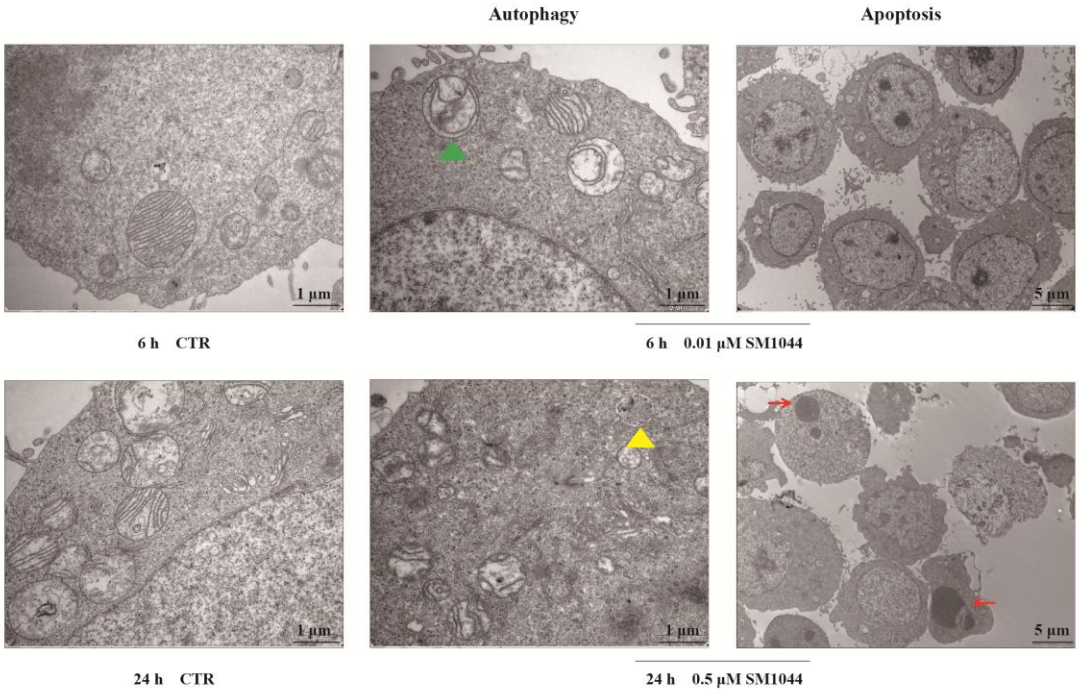
Supplementary Figure 4 No significant changes were observed in the activity of LKB1 or ATP level after the addition of SM1044. SU-DHL-4 cells were treated with SM1044 for the indicated time courses. The expression of p-LKB1 was detected by

western blot (**A**) and the level of ATP was detected by an enhanced ATP assay kit (mean±S.E.M, n=3) (**B**). NS, no significance.

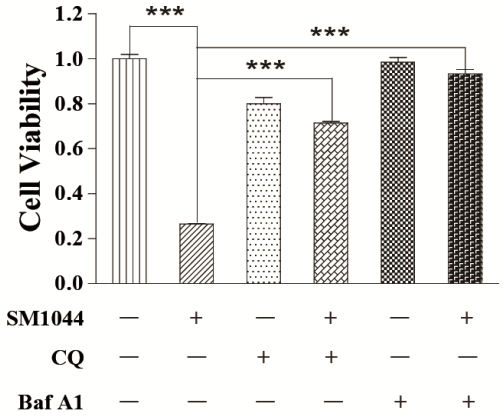
Supplementary Figure 1



Supplementary Figure 2



Supplementary Figure 3



Supplementary Figure 4