Figure S1. Growth inhibition and cell death by SFN in the H82 cells. Cell (A) viability and (B) death effects of H82 cells treated with SFN. Data are presented as the mean ± SD (n≥3). *P<0.05, **P<0.01, ***P<0.001, ****P<0.0001. SFN, sulforaphane.
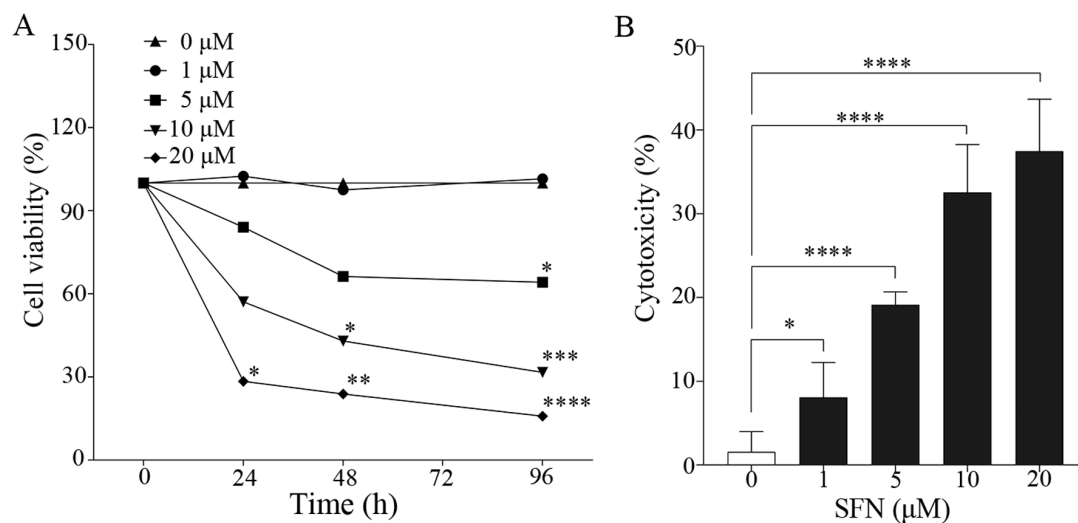
Figure S2. Live and dead assay. (A) Representative dot plots of live (green fluorescence-positive) and dead (red fluorescence-positive) SFN-treated cells and untreated controls. (B) Ratio of dead/live cells. Data are presented as the mean ± SD (n=5). ****P<0.0001. SFN, sulforaphane.
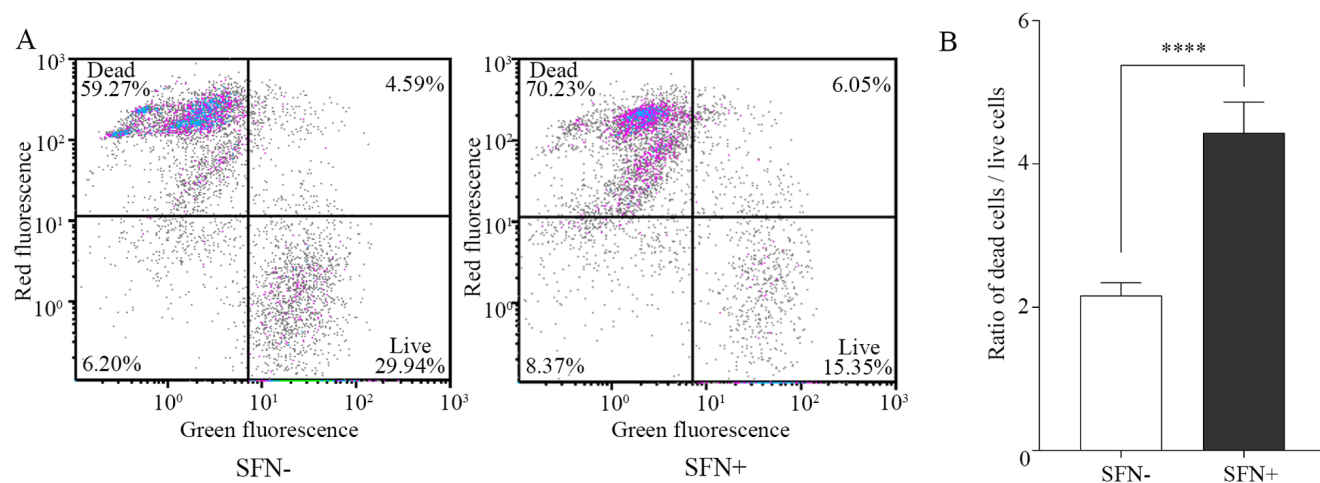
Figure S3. Sub-G$_1$ assay. The sub-G$_1$ peaks were quantified using flow cytometry, of SFN-treated H69 (96 h) and untreated H69 cells. The percentage of cells in the sub G$_1$ phase (<2N) was determined. Data are presented as the mean ± SD (n=4). **P<0.01. SFN, sulforaphane.
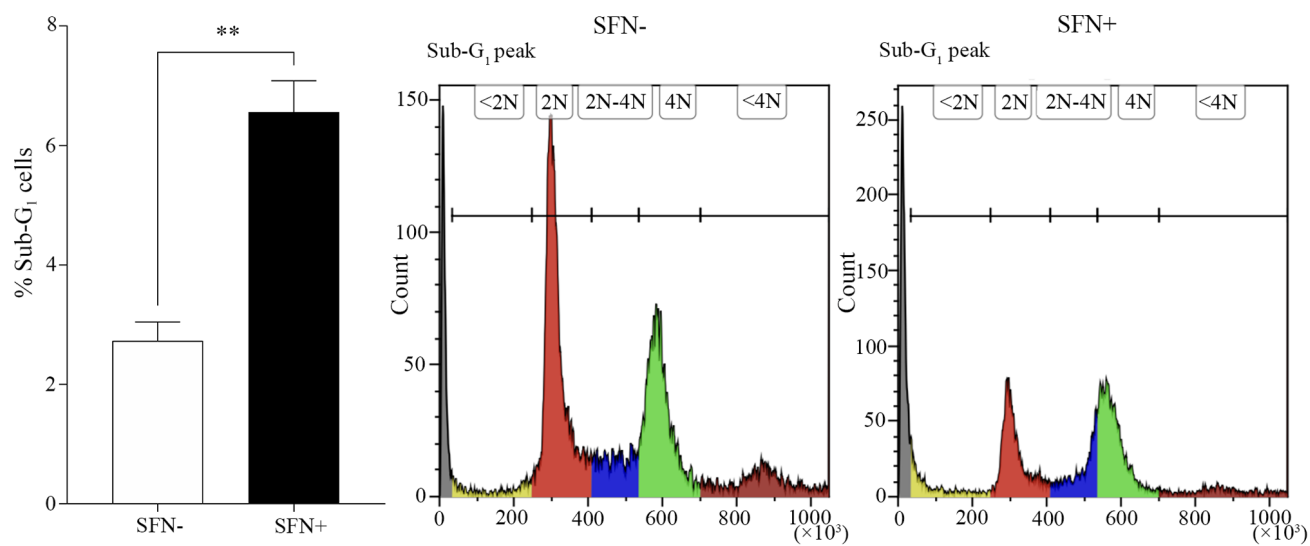
Figure S4. Time course of lipid peroxidation and ROS production. (A) Lipid peroxidation of H69 cells treated with 20 μM SFN for 0, 48, 72, 96 or 120 h and untreated control cells. The results were quantified using flow cytometry. (B) ROS production in H69 cells treated with 20 μM SFN for 0, 4, 8, 12 or 24 h. Data are presented as the mean ± SD (n>3). ***P<0.001; ****P<0.0001. ROS, reactive oxygen species; SFN, sulforaphane.
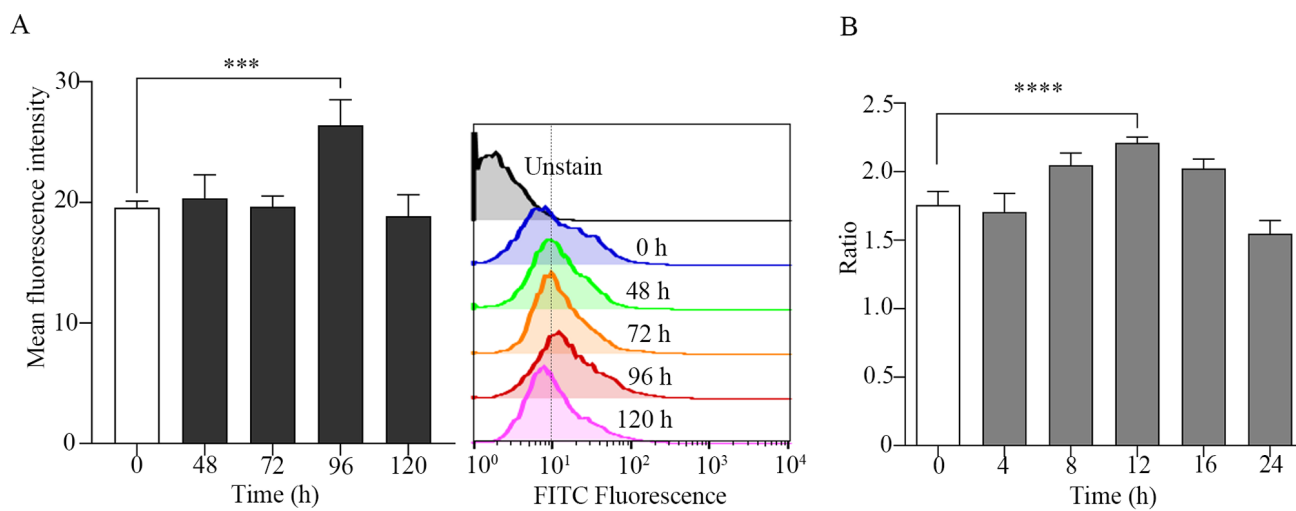
Figure S5. Morphological features of H69 cells treated with SFN. Morphological features of SFN-treated (20 μM) and untreated cells. The presence of mitochondria and nuclei were assessed using confocal fluorescence imaging. Magnification x60. SFN, sulforaphane.

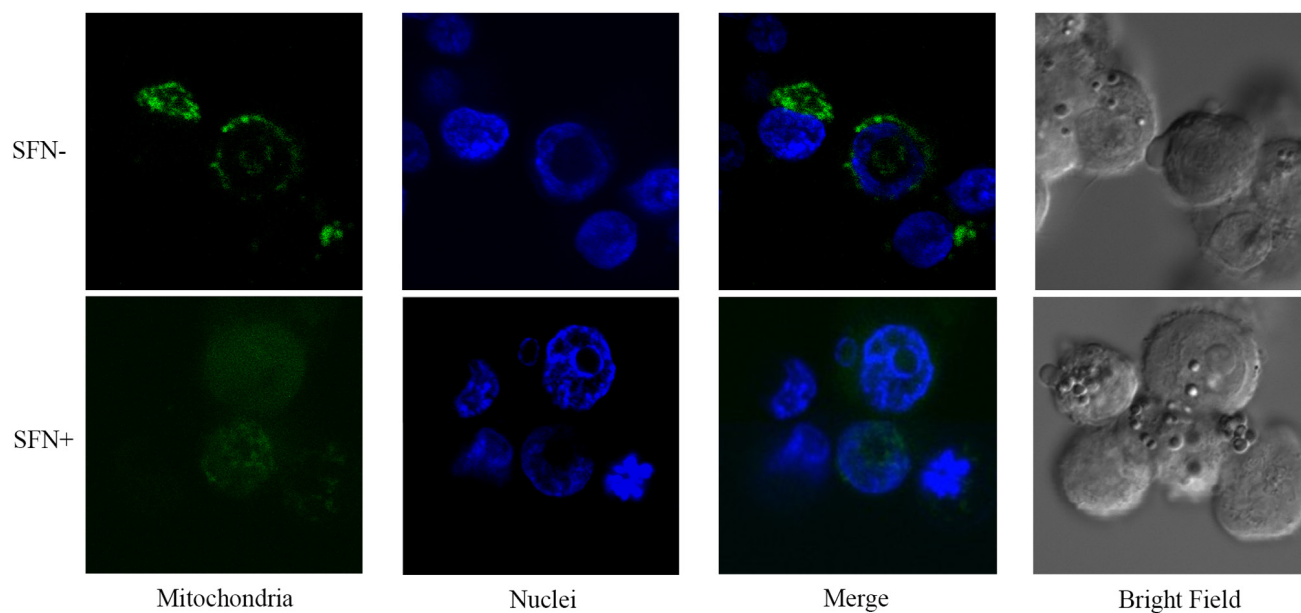| Mitochondria | Nuclei | Merge | Bright Field |

Figure S6. Ferroptotic cell death effects of SFN compared with that in cells treated with AMR in H69AR SCLC cells. (A) Minimum dose of AMR was ineffective in H69AR compared with that in the H69 cells. (B) SFN (20 μM) induced significantly more cell death compared with that in cells treated with AMR (C) Cell death by SFN was significantly inhibited by f in H69AR cells (P=0.0208). Data are presented as the mean ± SD (n=6). *P<0.05, ***P<0.001, ****P<0.0001. SFN, sulforaphane; AMR, amrubicinol; Fer-1, ferrostatin-1; -, no inhibitor; z, z-vad; n, necrostatin-1.