

Strophanthidin induces apoptosis of human lung adenocarcinoma cells by promoting TRAIL-DR5 signaling

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Supplementary Materials

Figure S1 – S12

Table S1 – S2

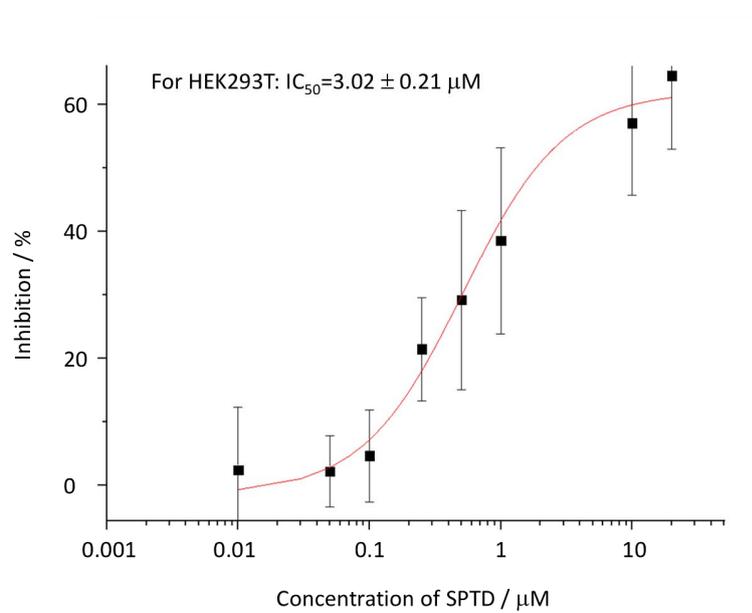
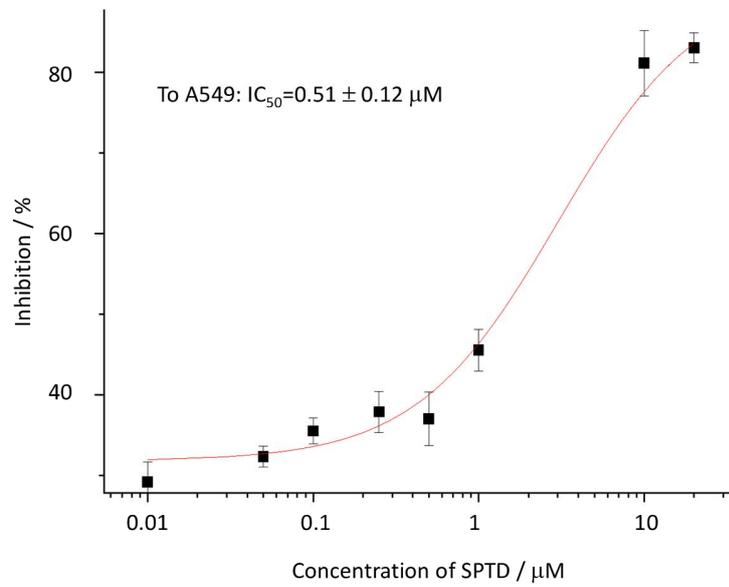


Figure S1. The inhibition of Strophanthidin (SPTD) on the growth of (top) A549 cells and (bottom) HEK293T cells incubated with various concentrations of SPTD at 37 °C for 24 h. The inhibition rate (%) are present as mean \pm SD, n=6.

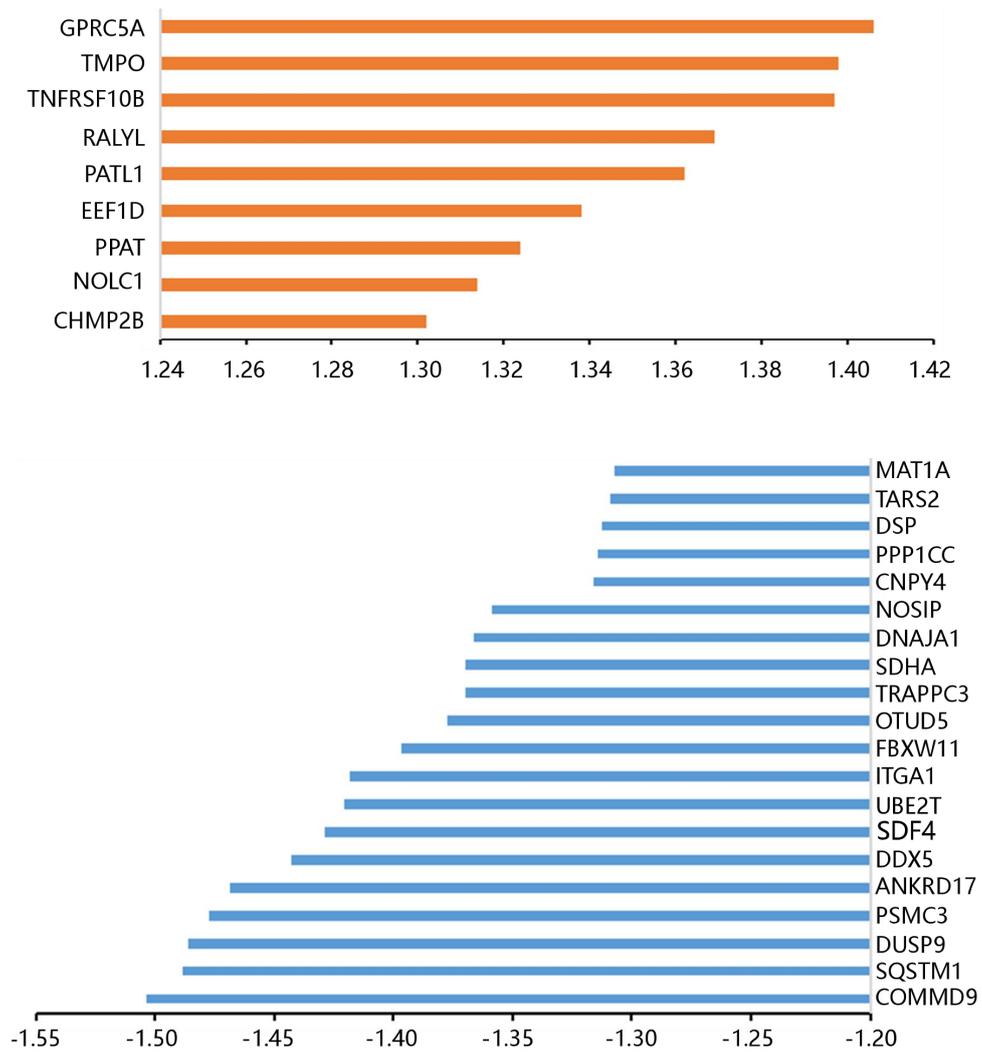


Figure S2. Differentially expressed proteins (DEPs) with a fold change $|FC| \geq 1.3$ identified in A549 cells incubated with 1.0 μM Strophanthidin (SPTD) at 37 °C for 24 h, compared to those in A549 cells without treatment.

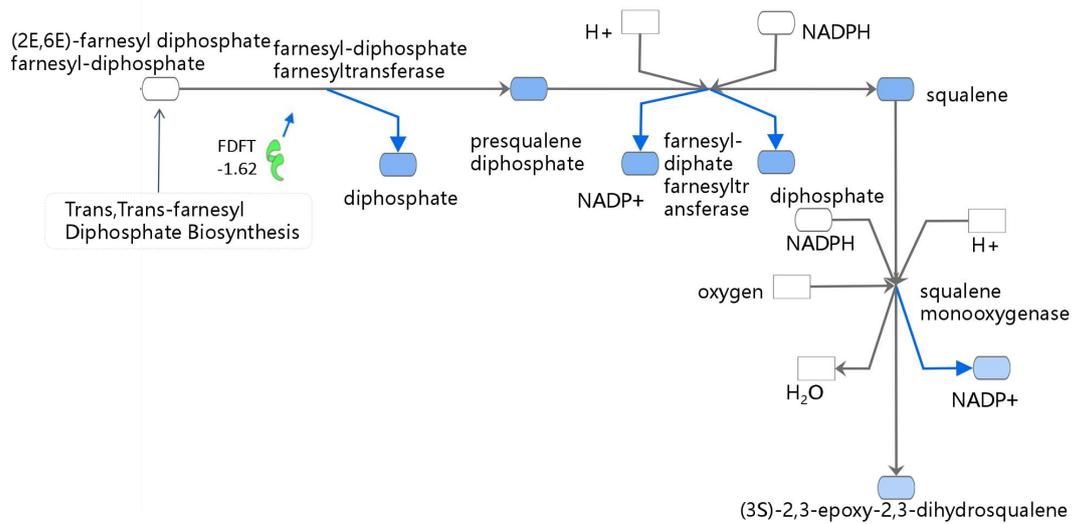


Figure S4. Schematic diagram super-pathway of epoxy-squalene biosynthesis signaling pathway with which the DEPs with $|FC| \geq 1.3$ identified in A549 cells incubated with 1.0 μM SPTD at 37 $^{\circ}\text{C}$ for 24 h, compared to those in A549 cells without treatment. The red color represents the protein (or complex) upregulated, green downregulated; the orange color represents the protein (or complex) predicted to be upregulated, blue to be downregulated.

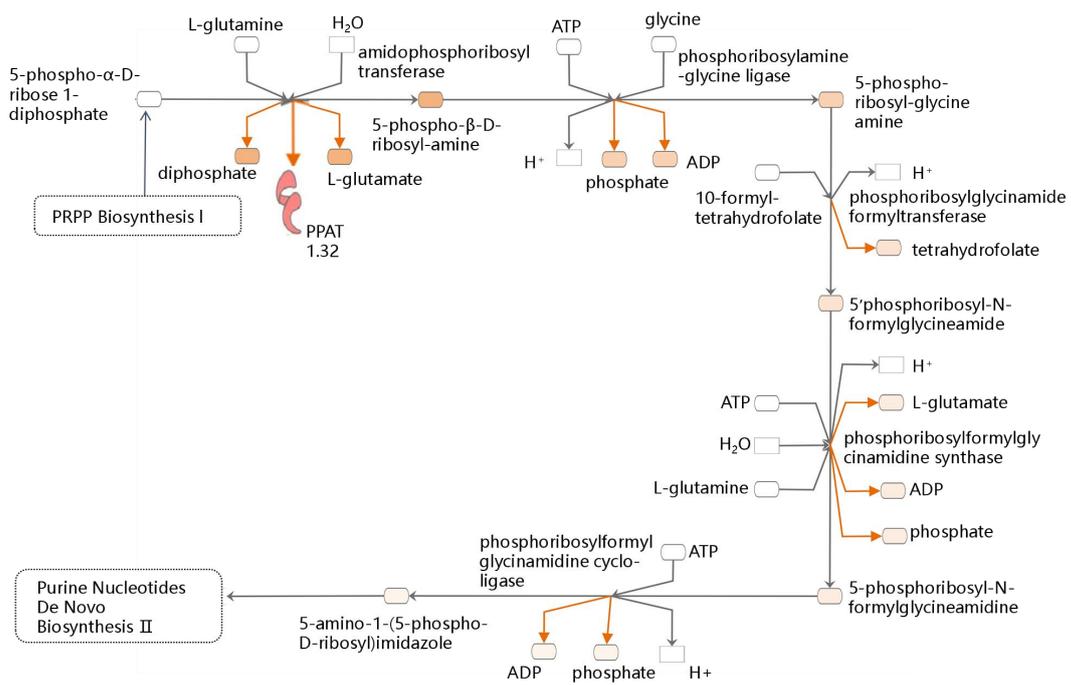


Figure S5. Schematic diagram super-pathway of 5-aminoimidazole ribonucleotide biosynthesis I signaling pathway with which the DEPs with $|FC| \geq 1.3$ identified in A549 cells incubated with $1.0 \mu\text{M}$ SPTD at 37°C for 24 h, compared to those in A549 cells without treatment. The red color represents the protein (or complex) upregulated, green downregulated; the orange color represents the protein (or complex) predicted to be upregulated, blue to be downregulated.

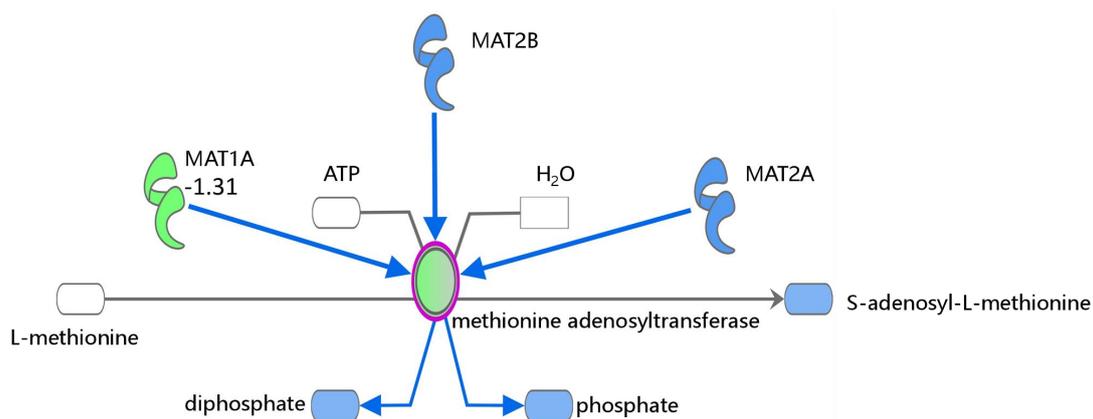


Figure S6. Schematic diagram super-pathway of S-adenosyl-L-methionine biosynthesis signaling pathway with which the DEPs with $|FC| \geq 1.3$ identified in A549 cells incubated with 1.0 μM SPTD at 37 °C for 24 h, compared to those in A549 cells without treatment. The red color represents the protein (or complex) upregulated, green downregulated; the orange color represents the protein (or complex) predicted to be upregulated, blue to be downregulated.

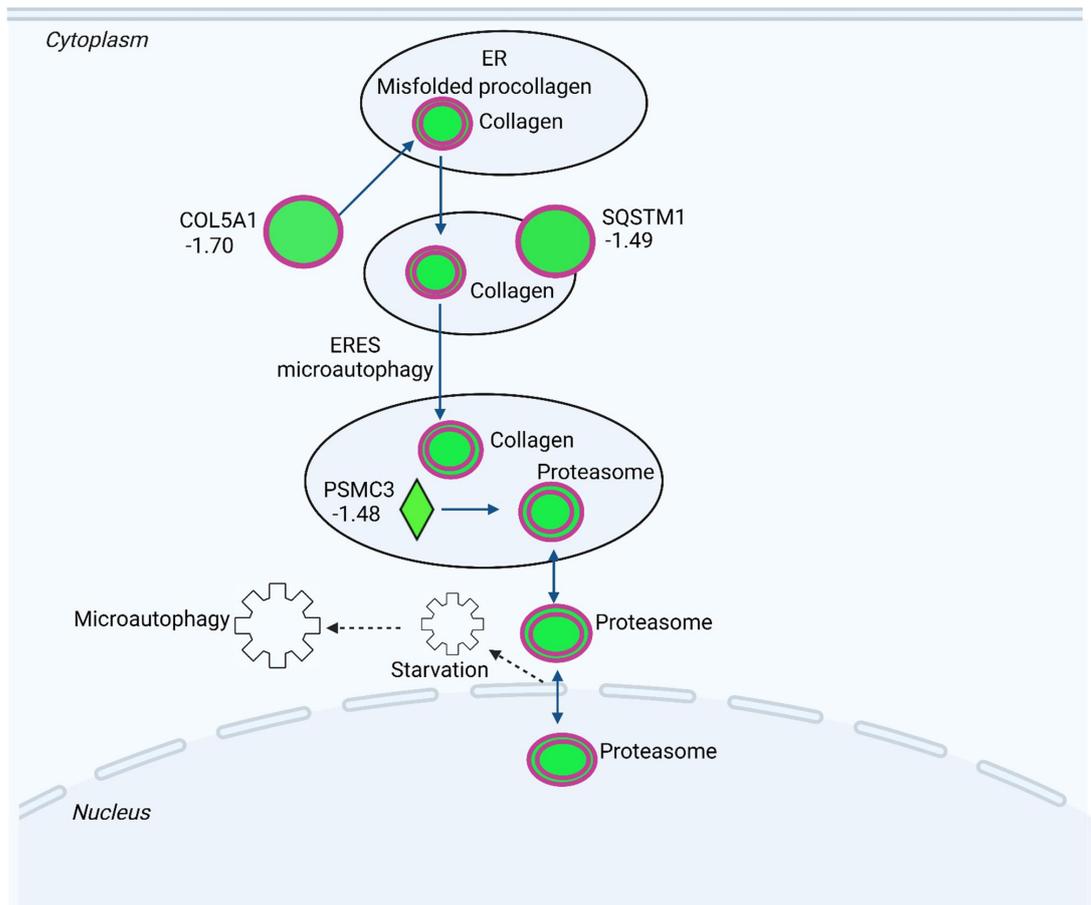


Figure S7. Schematic diagram super-pathway of micro-autophagy signaling pathway with which the DEPs with $|FC| \geq 1.3$ identified in A549 cells incubated with 1.0 μM SPTD at 37 $^{\circ}\text{C}$ for 24 h, compared to those in A549 cells without treatment. The red color represents the protein (or complex) upregulated, green downregulated; the orange color represents the protein (or complex) predicted to be upregulated, blue to be downregulated.

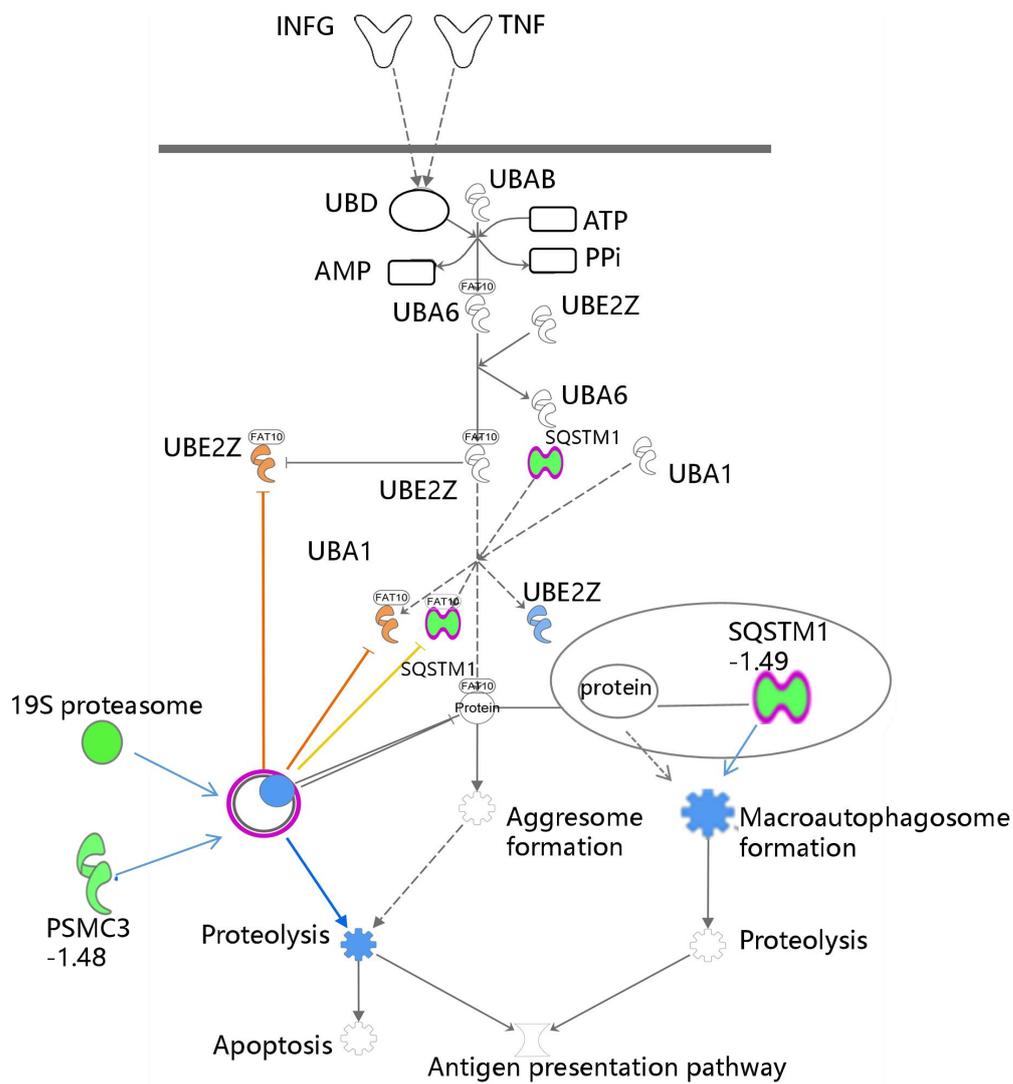


Figure S8. Schematic diagram super-pathway of FAT10 signaling pathway with which the DEPs with $|FC| \geq 1.3$ identified in A549 cells incubated with $1.0 \mu\text{M}$ SPTD at 37°C for 24 h, compared to those in A549 cells without treatment. The red color represents the protein (or complex) upregulated, green downregulated; the orange color represents the protein (or complex) predicted to be upregulated, blue to be downregulated.

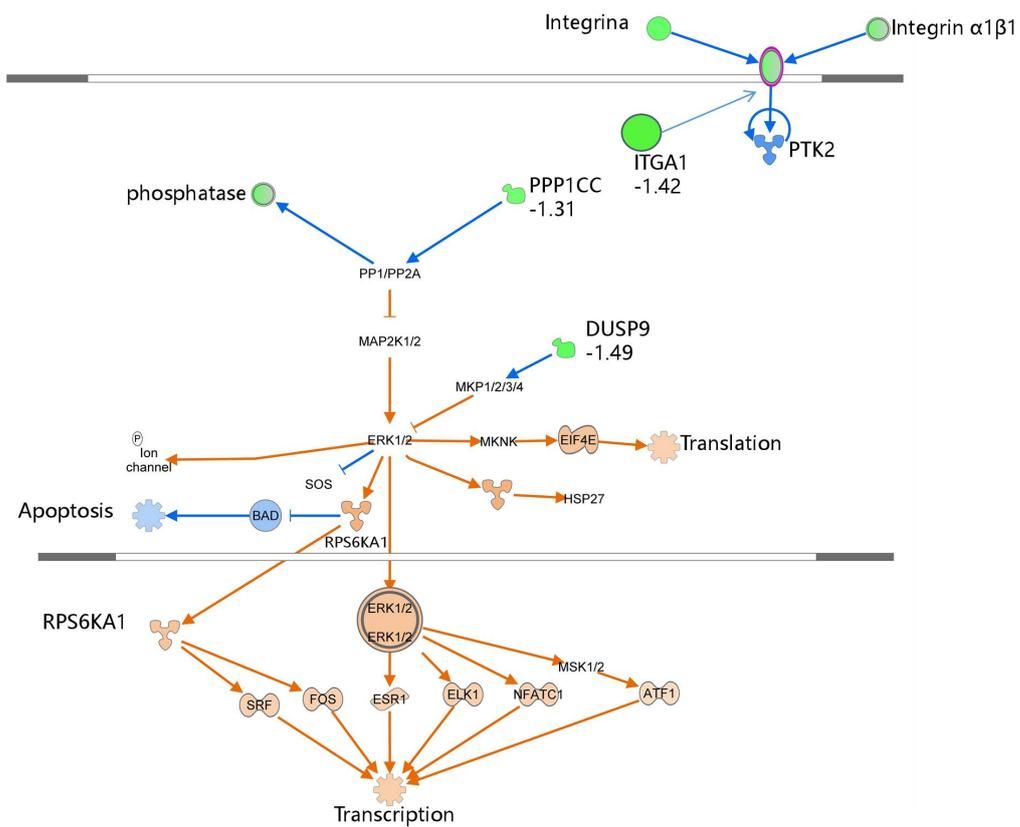


Figure S9. Schematic diagram super-pathway of ERK/MAPK signaling pathway with which the DEPs with $|FC| \geq 1.3$ identified in A549 cells incubated with $1.0 \mu\text{M}$ SPTD at 37°C for 24 h, compared to those in A549 cells without treatment. The red color represents the protein (or complex) upregulated, green downregulated; the orange color represents the protein (or complex) predicted to be upregulated, blue to be downregulated.

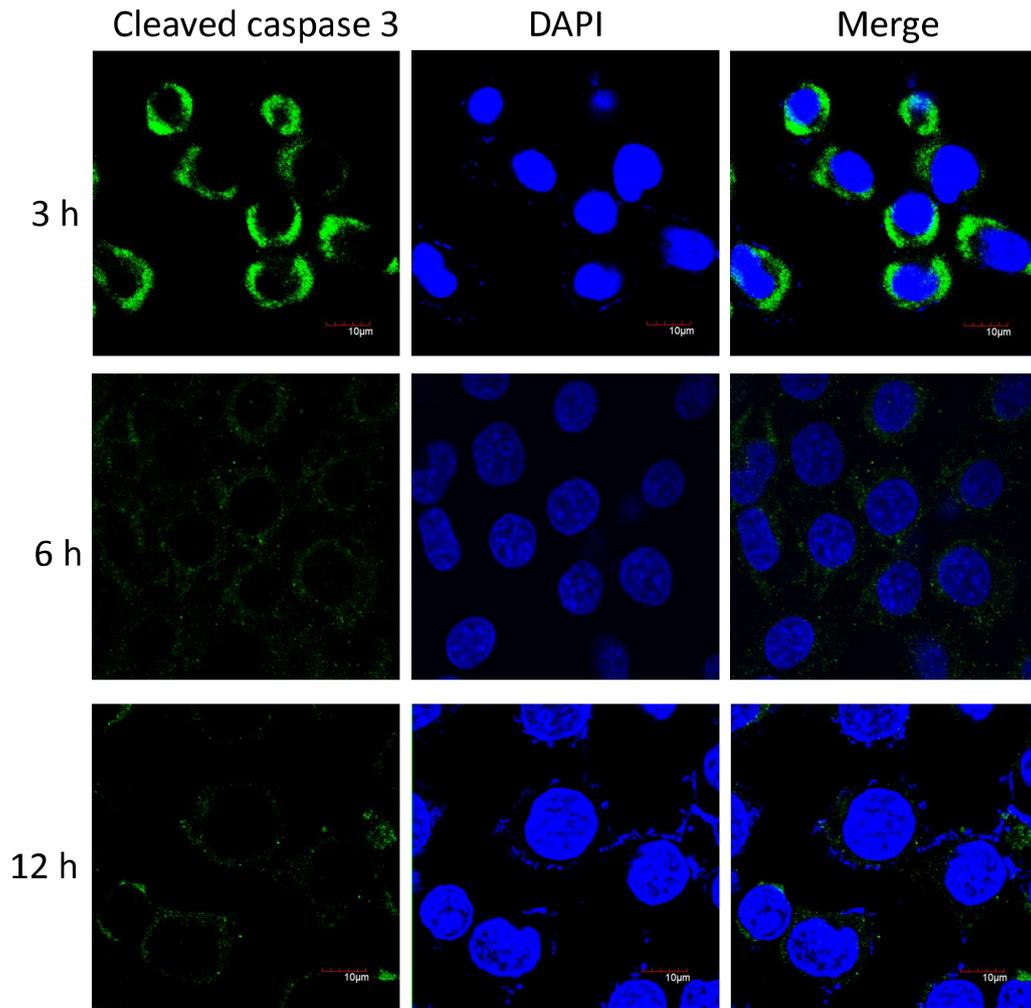


Figure S10. Immunofluorescence images of cleaved/activated caspase-3 in A549 cells treated with 1.0 μM SPTD for different times at 37 °C. Green fluorescence represents the target protein and blue fluorescence represents the nucleus stained by DAPI.

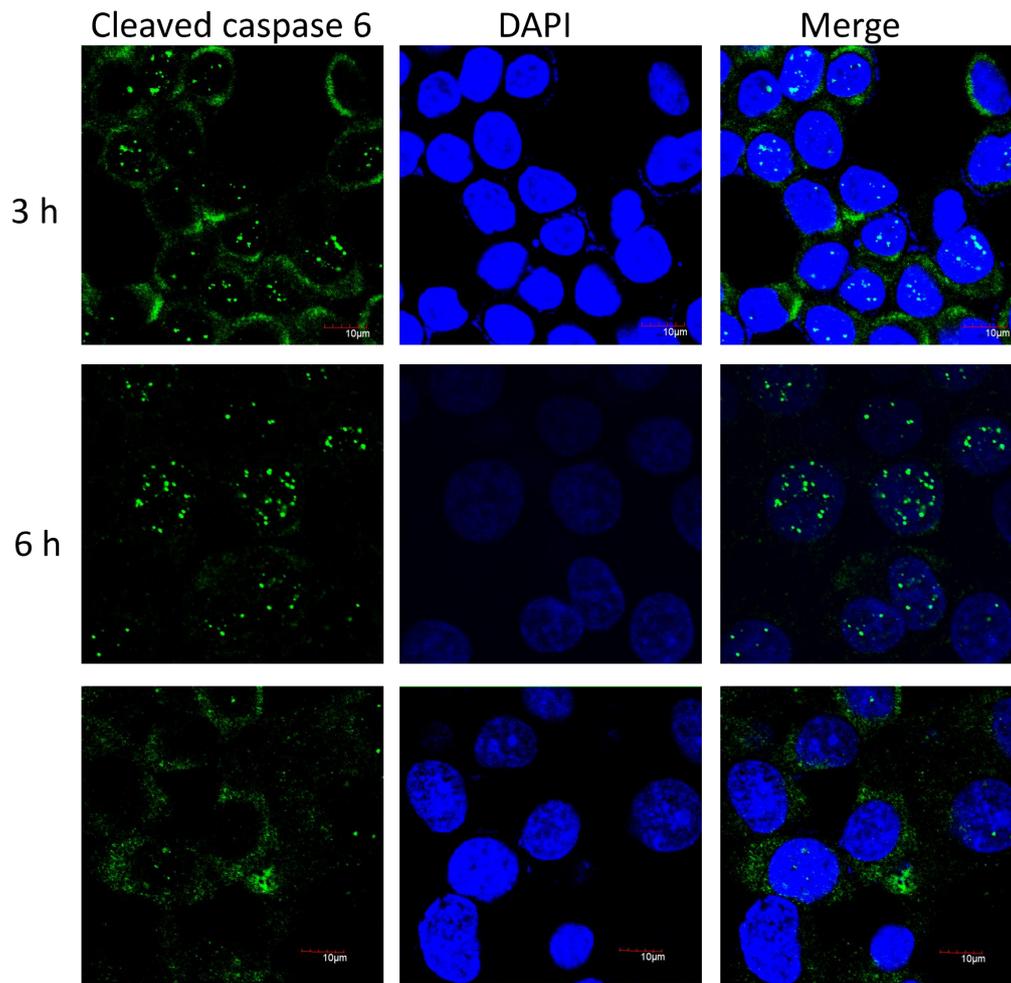


Figure S11. Immunofluorescence images of cleaved/activated caspase-6 in A549 cells treated with 1.0 μM SPTD for different times at 37 $^{\circ}\text{C}$. Green fluorescence represents the target protein and blue fluorescence represents the nucleus stained by DAPI.

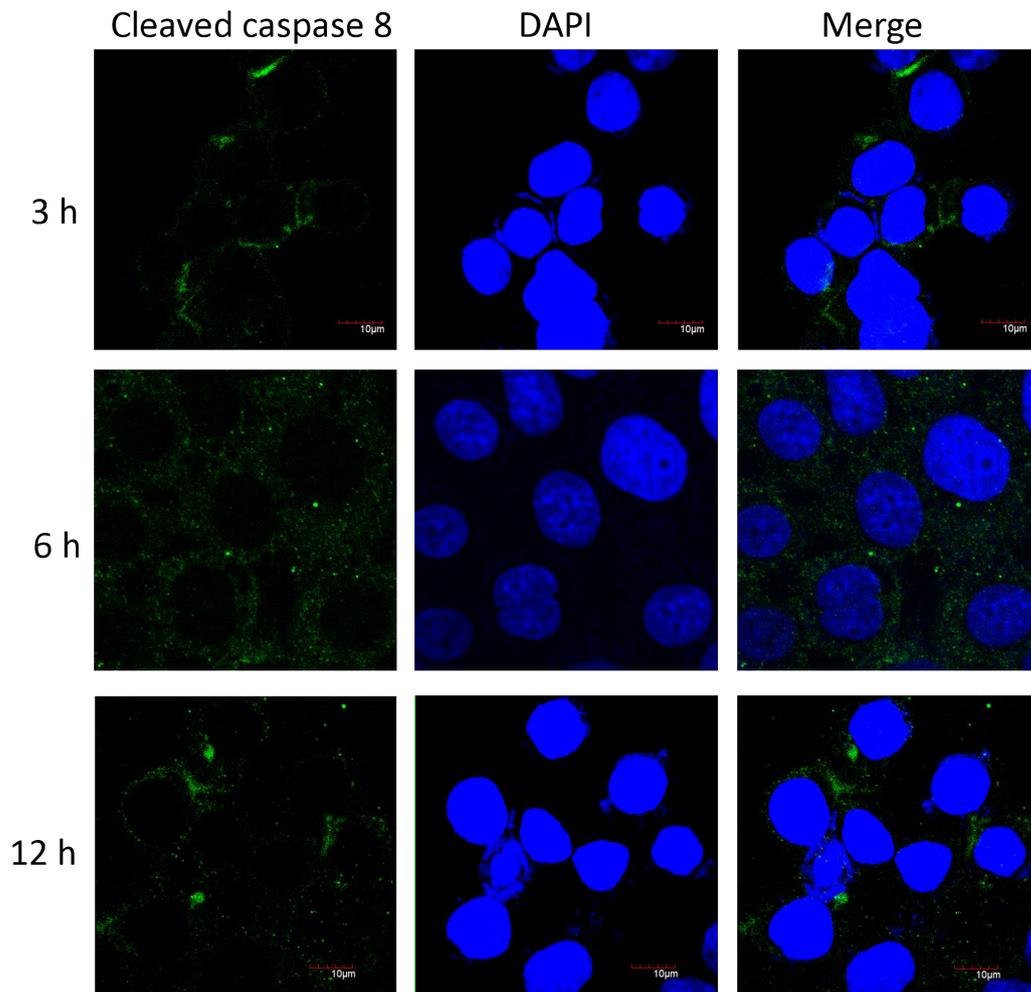


Figure S12. Immunofluorescence images of cleaved/activated caspase-8 in A549 cells treated with 1.0 μM SPTD for different times at 37 °C. Green fluorescence represents the target protein and blue fluorescence represents the nucleus stained by DAPI.