Figure S1. Isoliensinine induces  $G_0/G_1$  phase cell cycle arrest in cervical cancer cells. (A) HeLa cells were exposed to 0, 5, 10, 20, 30 and 40  $\mu$ M isoliensinine for 24 h. (B) SiHa cells were exposed to 0, 5, 10, 20, 30 and 40  $\mu$ M isoliensinine for 24 h.  $G_1$  and  $G_2$  are indicated by small black triangles on the x-axis (Fig. S1 shows further data from Fig. 2).

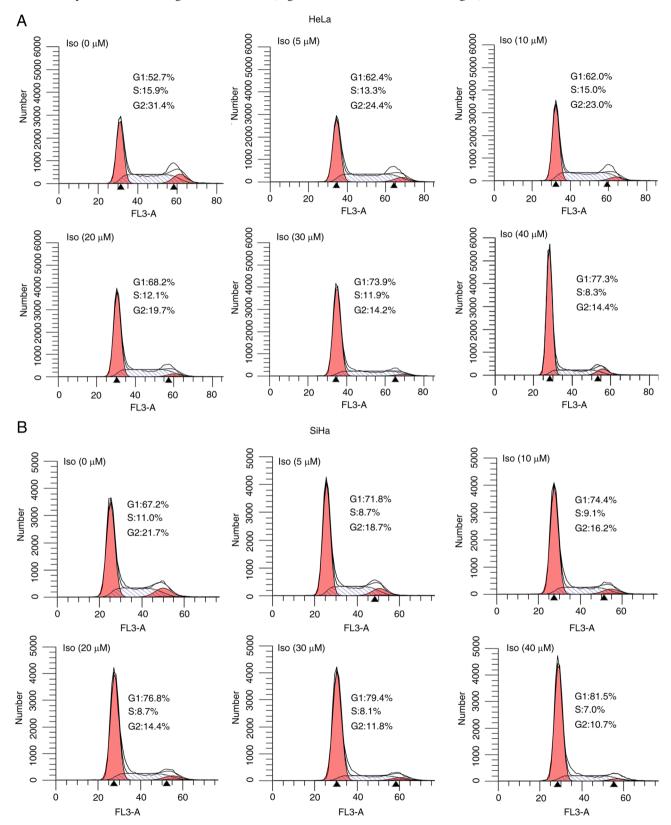


Figure S2. Changes in the expression of regulatory cell cycle proteins in C33A, Caski, HeLa and SiHa cells treated with 0, 5, 10, 20, 30 and 40  $\mu$ M isoliensinine for 24 h by reverse transcription PCR analysis. Iso, isoliensinine; GSK, glycogen synthase kinase.

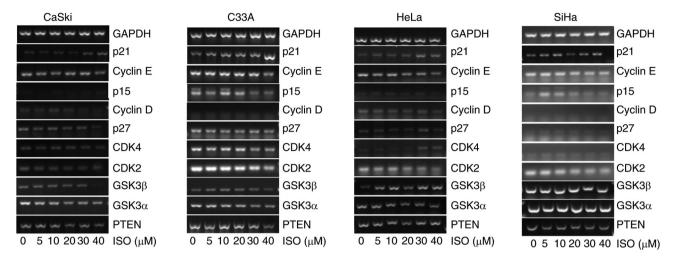


Figure S3. Isoliensinine induces C33A cell apoptosis. (A) PI/Annexin V-FITC staining analysis of cell apoptosis in C33A cells treated with 0, 5, 10, 20, 30 and 40  $\mu$ M isoliensinine for 48 h or (B) 20  $\mu$ M isoliensinine for 0, 3, 12, 24, 48 and 72 h (Fig. S3 shows further data from Fig. 4). Iso, isoliensinine.

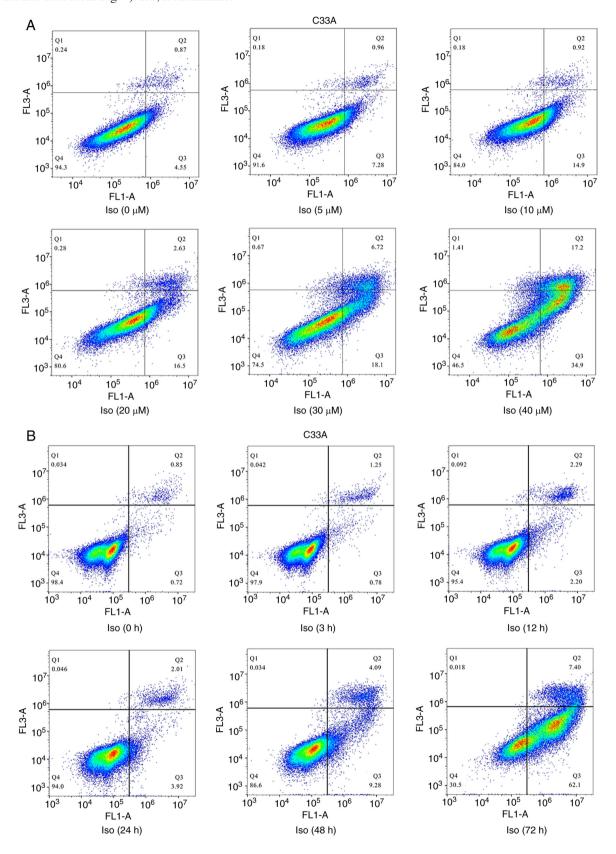


Figure S4. Isoliensinine induces Caski cell apoptosis. (A) PI/Annexin V-FITC staining analysis of cell apoptosis in Caski cells treated with 0, 5, 10, 20, 30 and 40  $\mu$ M isoliensinine for 48 h or (B) 20  $\mu$ M isoliensinine for 0, 3, 12, 24, 48 and 72 h (Fig. S4 shows further data from Fig. 4). Iso, isoliensinine.

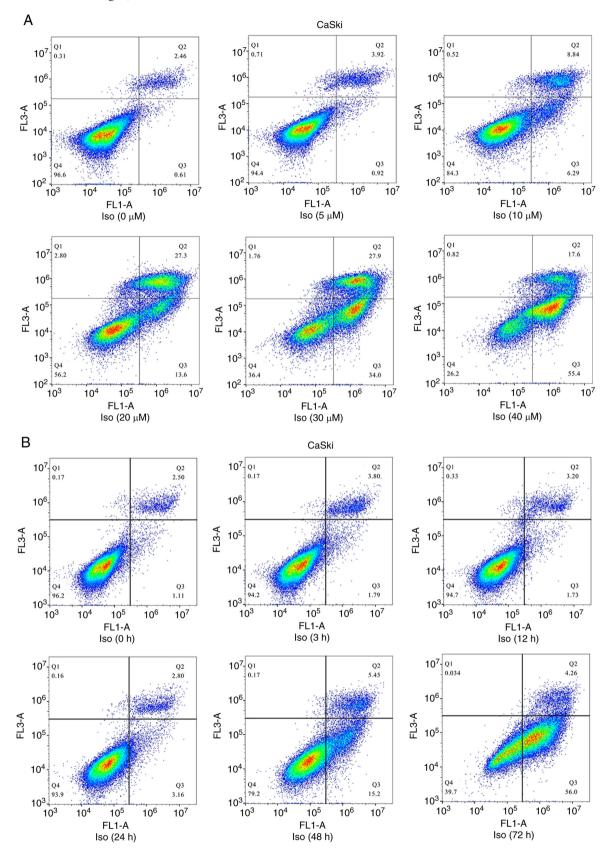


Figure S5. Isoliensinine induces SiHa cell apoptosis. (A) PI/Annexin V-FITC staining analysis of cell apoptosis in SiHa cells treated with 0, 5, 10, 20, 30 and 40 ( $\mu$ M) of isoliensinine for 48 h or (B) 20  $\mu$ M isoliensinine for 0, 3, 12, 24, 48 and 72 h (Fig. S5 shows further data from Fig. 4). Iso, isoliensinine.

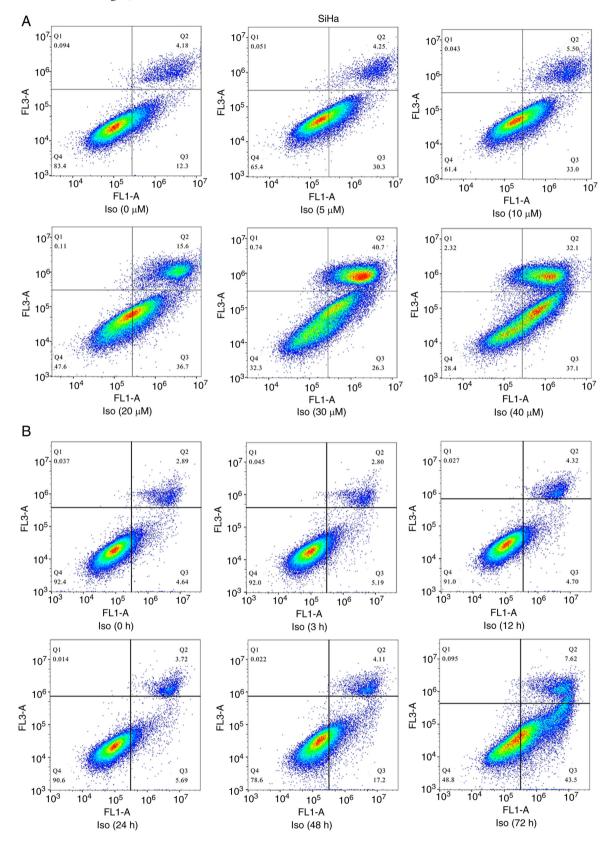


Figure S6. PTEN expression in cervical cancer cells after isoliensinine treatment. HeLa, CasKi, C33A and SiHa cervical cancer cells were treated with isoliensinine at different time points (0,1,3,6,12 and 24 h) and different doses  $(0,5,10,20,30 \text{ and } 40 \mu\text{M})$ . (A) Apoptosis-related gene expression was measured by reverse transcription-PCR. (B) PTEN protein expression was detected by western blotting with GAPDH used as the internal reference.

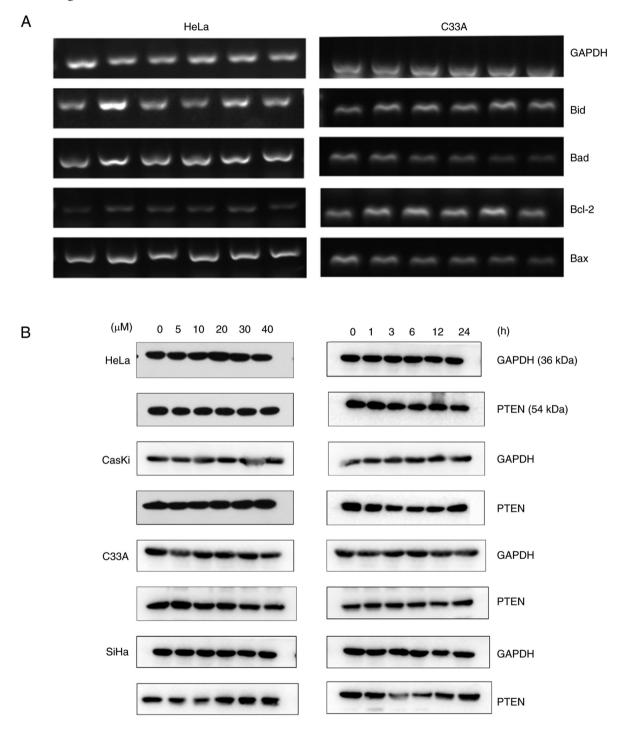


Figure S7. Isoliensinine induces SiHa cell cycle arrest. (A) Cell cycle distribution in SiHa cells treated with 0, 5, 10, 20, 30 and 40  $\mu$ M of isoliensinine for 24 h, (B) which was quantified. In total, 0.1% DMSO was used as negative control.  $G_1$  and  $G_2$  are indicated by small black triangles on the x-axis. \*P<0.05 vs. NC. NC, negative control; Iso, isoliensinine; AI, AKTi-1/2.

