

Figure S1. Identification of Serpin E1 expression in Serpin E1-knocked down and -overexpressed cancer-association fibroblasts (CAFs) by RT-qPCR and western blotting. * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$

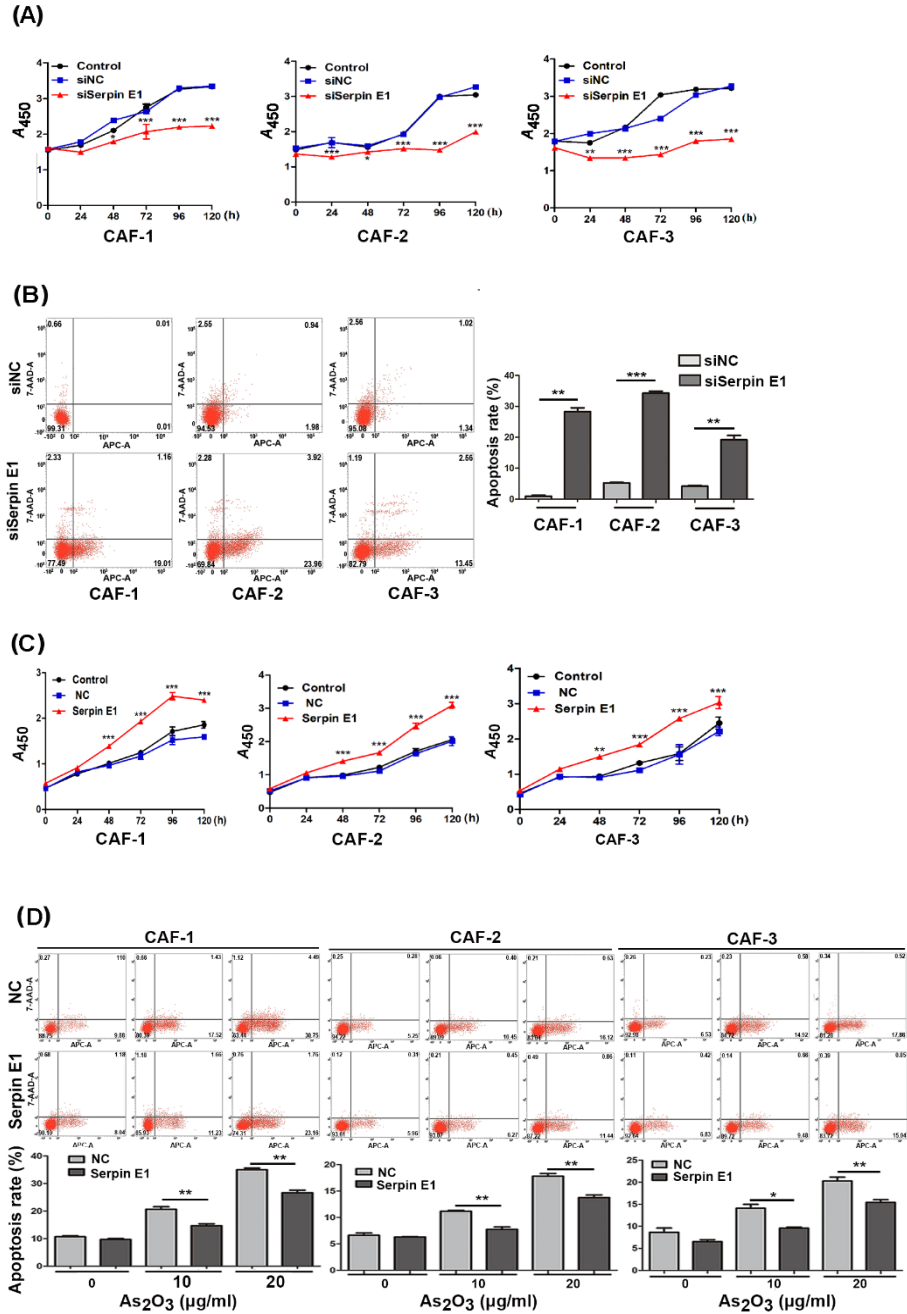


Figure S2. Knockdown and overexpression of Serpin E1 impact the growth and apoptosis of CAFs. **A, C** Knockdown (**A**) or overexpression (**C**) of Serpin E1 inhibits or increases the viability of CAFs by CCK8 assay. **B, D** Knockdown (**B**) or overexpression (**D**) of Serpin E1 promotes apoptosis or protects against As₂O₃-induced apoptosis in CAFs by flow cytometry. Line and bar graphs show the mean \pm SD; * p <0.05, ** p <0.01, and *** p <0.001

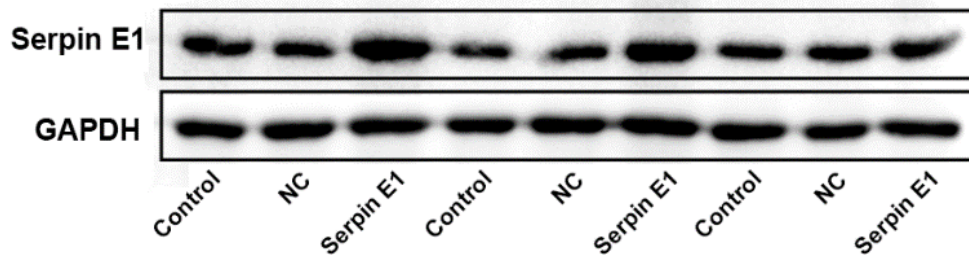


Figure S3. Identification of Serpin E1 protein expression in Serpin E1-overexpressed Hs738 cells (a human gastric fibroblast cell line)

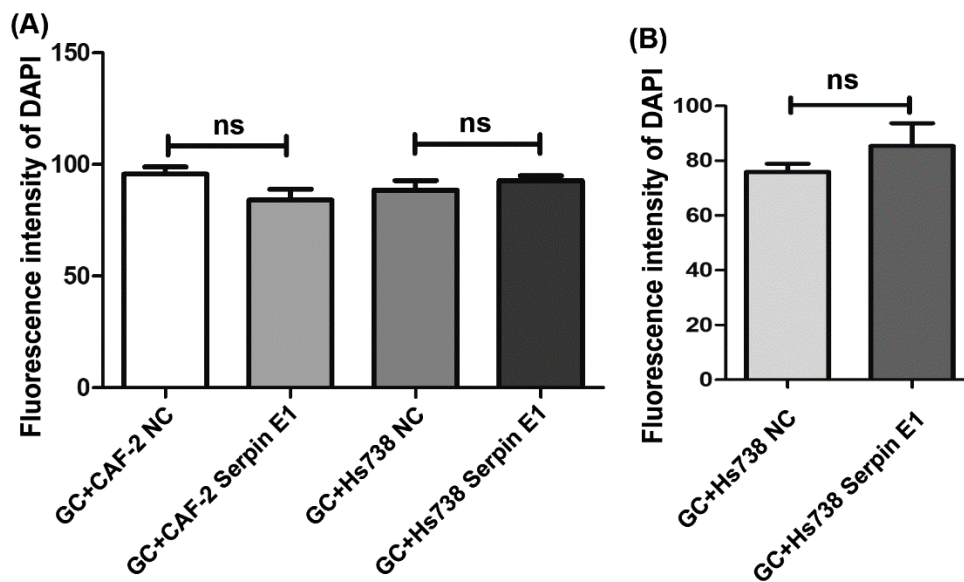


Figure S4. DAPI fluorescence intensity in Figure 5 was quantified in the subcutaneous (A) and peritoneal (B) tumors using Image J software. Data was presented as the mean \pm SD (n=3), with “ns” indicating no statistically significant difference.

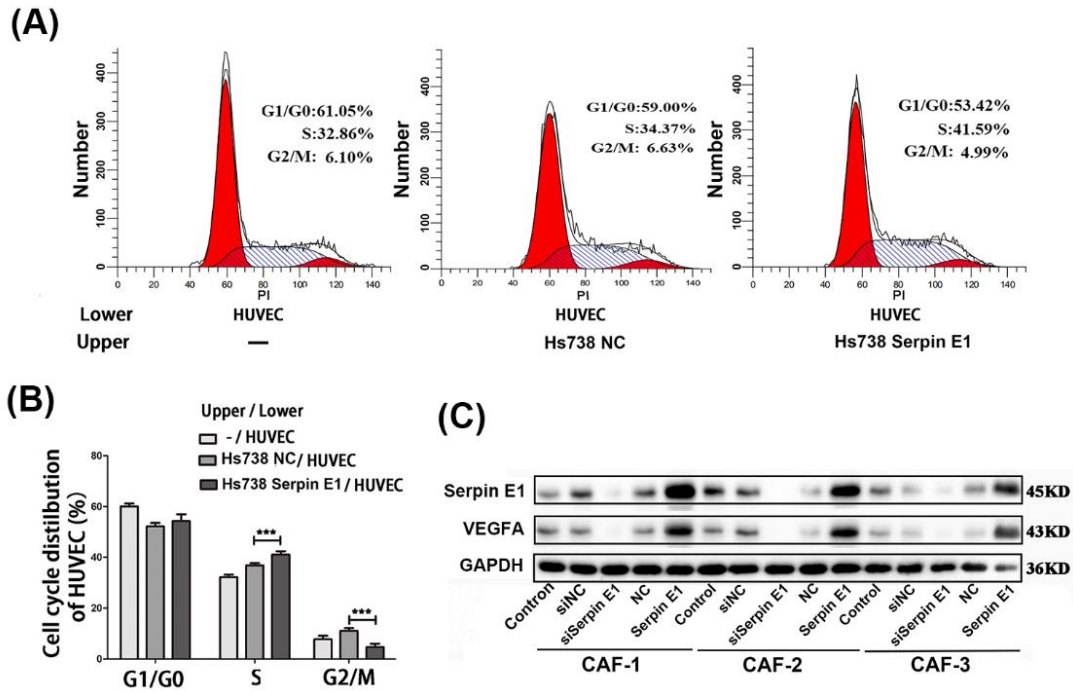


Figure S5. Fibroblast-derived Serpin E1 prompts the cycle progression of HUVECs and VEGFA expression in CSFs. **A** Cell-cycle distribution was analyzed by flow cytometry in HUVECs co-cultured with Serpin E1-overexpressed Hs738 cells. **B** Quantification of cell-cycle distribution. **C** Western blotting analysis of VEGFA in Serpin E1 knockdown and overexpression CAFs. Data were presented as the mean \pm SD; *** p <0.001.

Table S1 Primary and secondary antibodies used in the study

Proteins	Antibodies	Dilution (Western blot)	Dilution (IHC/IF)	Catalog number	Company
Serpin E1	Rabbit pAb	1:800	1:200	Ab66705	Abcam
Ki67	Mouse mAb	NA	1:200	9449S	CST
CD31	Rabbit mAb	NA	1:250	Ab182981	Abcam
VEGFA	Rabbit mAb	1:600	1:250	EP1176Y	Abcam
P-p38	Rabbit pAb	1:1000	NA	28796-1-AP	Proteintech
p38	Mouse mAb	1:1000	NA	66234-1	Proteintech
P-ERK1/2	Rabbit mAb	1:1000	NA	27833-1-AP	Proteintech
ERK1/2	Rabbit mAb	1:1000	NA	11257-1-AP	Proteintech
P-JNK	Rabbit pAb	1:2000	NA	80024-1-RR	Proteintech
JNK	Mouse mAb	1:1000	NA	66210-1	Proteintech
CK18	Mouse pAb	NA	1:400	66187-1-Ig	Proteintech
GAPDH	Rabbit pAb	1:1000	NA	10494-1-AP	Proteintech
Secondary antibody	Gost IgG (HRP -conjugated)	1:8000	1:400	SA00001-2	Proteintech
Secondary antibody	Gost IgG (CoraLite594 - conjugated)	NA	1:300	SA00013-4	Proteintech