Supporting Information

Fructose-coated Ångstrom silver inhibits osteosarcoma growth and metastasis via promoting ROS-dependent apoptosis through the alteration of glucose metabolism by inhibiting PDK

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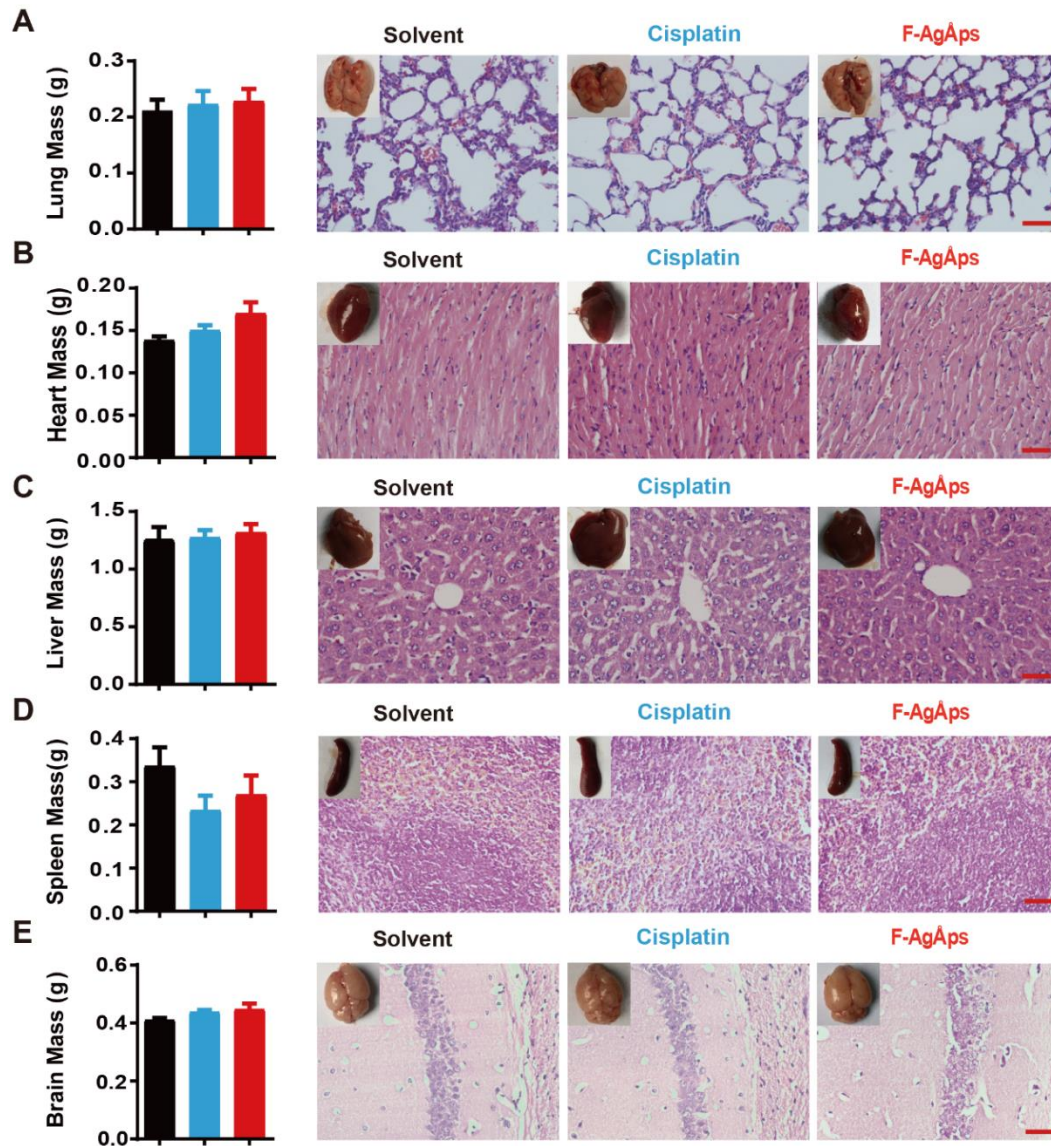
Figure S1. No obvious toxicities are induced in osteosarcoma-bearing mice after intravenous injection of F-AgÅPs. (A-E) Weights, gross observation and H&E staining images of lung (**A**), heart (**B**), liver (**C**), spleen (**D**) and brain (**E**) in subcutaneous 143B xenograft-bearing mice treated with solvent, F-AgÅPs or cisplatin for 21 days. Scale bar: 100 μm. $n = 6$ *per* group. Scale bar: 100 μm. Data are shown as mean ± SD. $^*P < 0.05$, $^{**}P < 0.01$, $^{***}P < 0.001$.
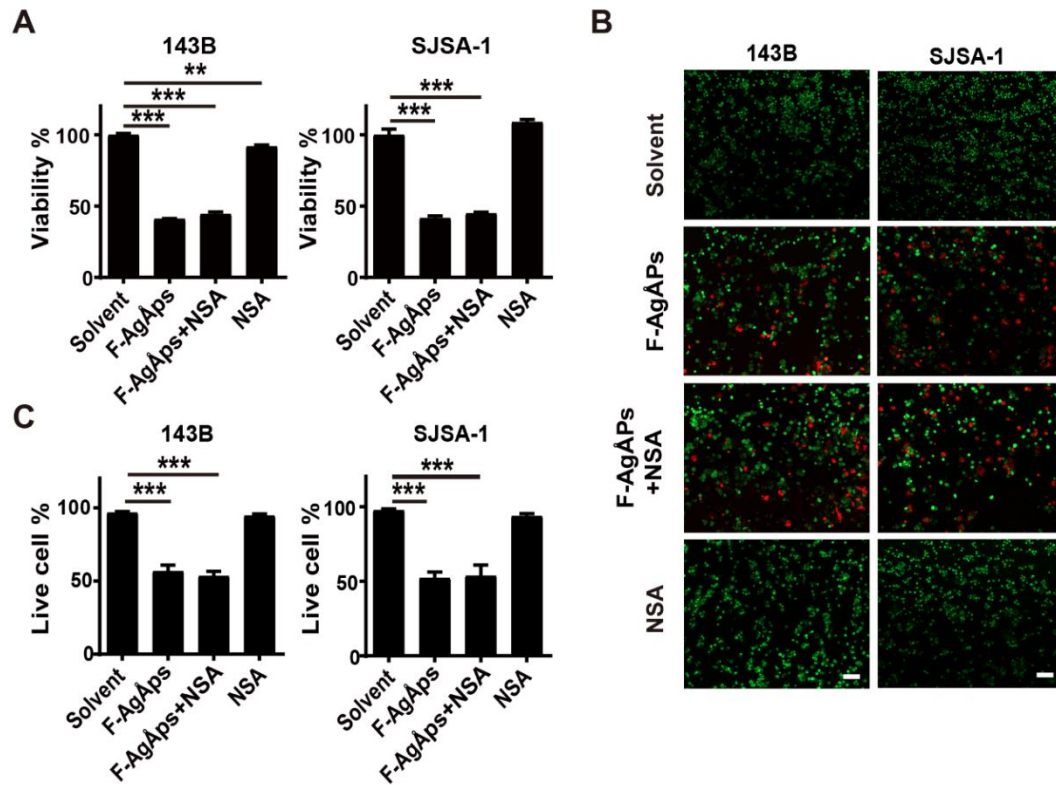
Figure S2. Pyroptosis is not involved in F-AgÅPs-induced osteosarcoma cell death.
(**A**) CCK-8 analysis of the viability of 143B and SJSA-1 treated with solvent, F-AgÅPs, NSA or F-AgÅPs + NSA for 24 h. NSA: necrosulfonamide. $n = 5$ *per* group. (**B**) Representative images of calcein-AM/PI staining of 143B and SJSA-1 receiving different treatments for 24 h. Scale bar: 100 μm. (**C**) Quantification of the percentages of live cells in (**B**). $n = 3$ *per* group. Data are shown as mean ± SD. $^*P < 0.05$, $^{**}P < 0.01$, $^{***}P < 0.001$.
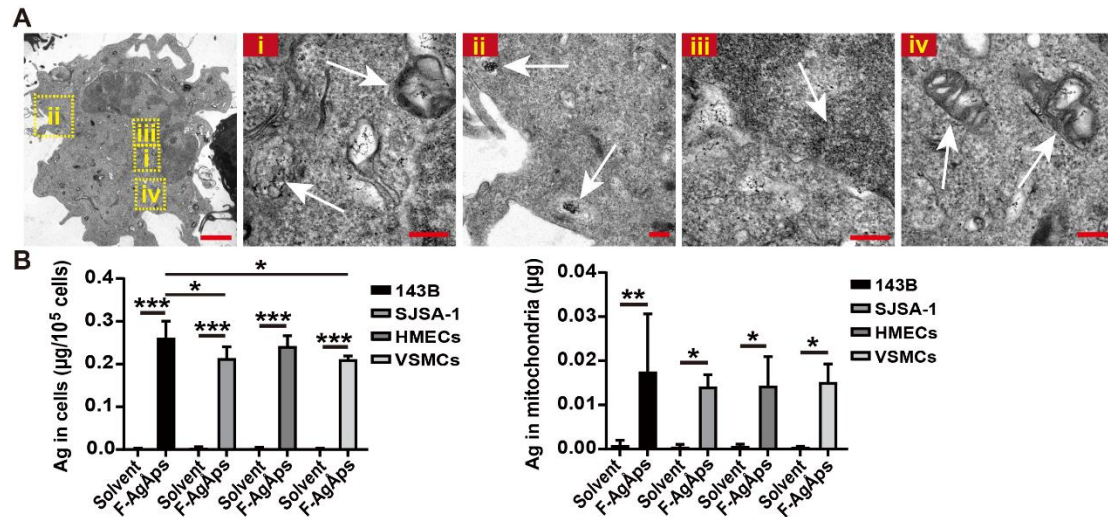
Figure S3. Internalization of F-AgÅPs by osteosarcoma cells and healthy cells. (A) Representative transmission electron microscopy images of 143B treated with F-AgÅPs for 24 h. White arrows indicate the accumulation of F-AgÅPs in cellular endosomes (**i**), lysosomes (**ii**), nucleus (**iii**) and mitochondria (**iv**). Scale bar: 2 μm. **(B)** Silver levels in cell lysates and mitochondria of 143B, SJSA-1, VMSCs and HMECs treated with solvent or F-AgÅPs for 24 h were measured by ICP-MS. $n = 4$ *per* group. Data are shown as mean ± SD. $^{*}P < 0.05$, $^{**}P < 0.01$, $^{***}P < 0.001$.

Table S1 Hematologic indexes in mice treated with solvent, cisplatin and F-AgÅPs.

Hematologic indexes	Solvent	Cisplatin	F-AgÅPs
Red blood cells (RBC) 10^{12}/L	7.19 ± 0.33	6.21 ± 1.67	7.48 ± 0.23
Hemoglobin (HGB) g/L	113.80 ± 1.79	96.00 ± 25.85	116.00 ± 3.61
Hematokrit (HCT) %	35.56 ± 0.93	29.18 ± 7.84	35.42 ± 1.03
White blood cells (WBC) 10^9/L	12.96 ± 4.85	14.14 ± 1.99	12.28 ± 4.41
Platelets (PLT) 10^9/L	560.00 ± 96.09	515.60 ± 164.30	631.00 ± 56.45
Neutrophil (NEUT%) %	8.28 ± 2.72	14.76 ± 5.72	16.34 ± 8.78
Lymphocytes (LYMPH%) %	83.70 ± 2.08	80.28 ± 4.70	76.62 ± 8.72
Monocyte (MONO%) %	6.72 ± 3.30	4.18 ± 2.39	5.48 ± 3.47

$n = 5$ *per* group. Data are shown as mean ± SD.