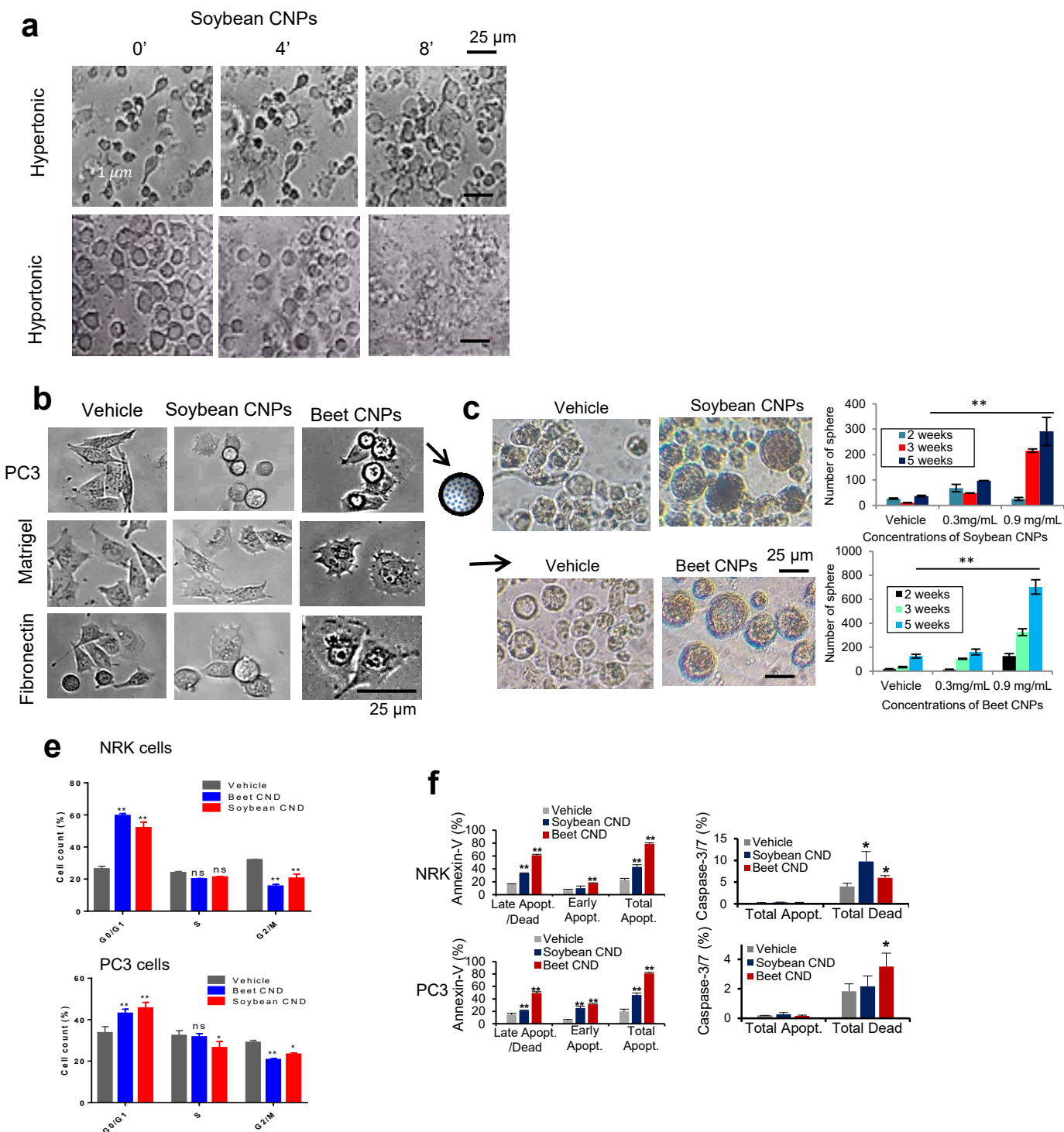
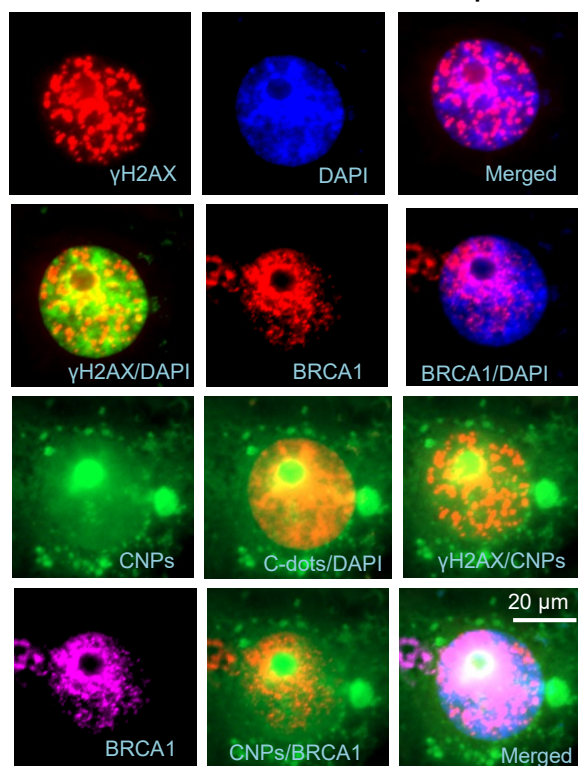


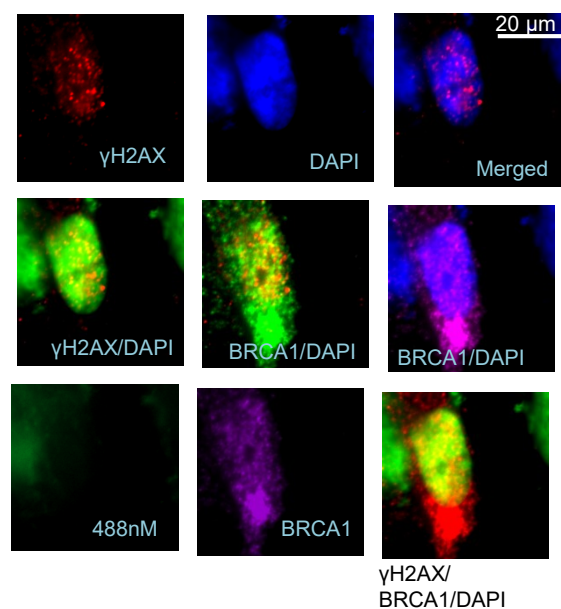


Carbon Nanoparticles (indicated as CNP, or CNDs) induce a novel cell death of carbopoptosis. a. Investigation of CNPs derived from soybean and beet by AFM and distribution of size counting. b. Soybean CNP induces osmosis related cell death in PC3 cells treated with 0.25 mg/mL for times indicated upon pretreatment with 2.5M and 10M glucose, respectively. c. CNPs induced cell death at 0.1mg/mL which can be prevented by Matrigel and fibronectin. d. Single floating cells were collected and formed spheres upon continue culture by removing CNPs. PC3 cells were collected after treatment of overnight by vehicle or 0.3 and 0.9 mg/mL and continue culture for days indicated. e-f. Cell cycle, cell death analysis by flow cytometer, or cell analyzer. PC3 or NRK cells were treated by CNPs for 2hrs and subjected to analysis.

PC3 Beet Carbon nanoparticles

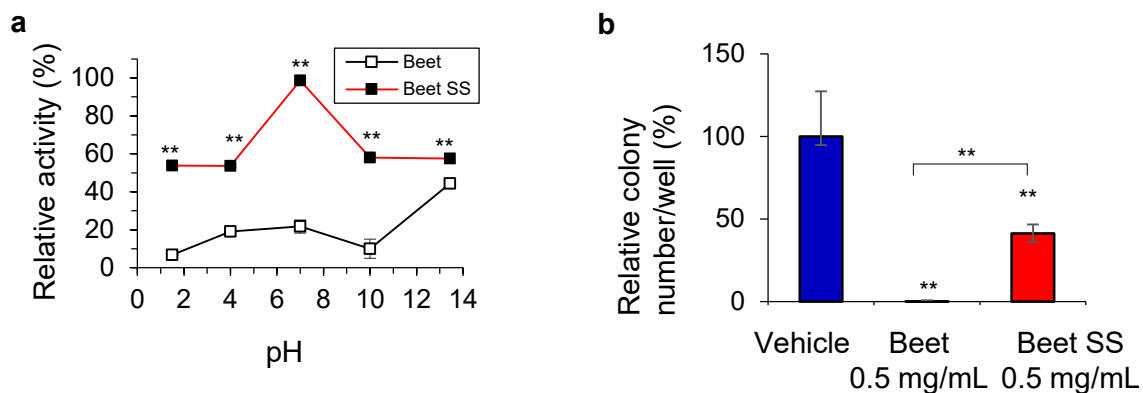


PC3 Vehicle



Supporting Fig 5d, e.

Fig S3



Nanozyme activity of beet SS carbon nanoparticles which exhibit higher phosphatase activity and enhanced anchorage-independent sphere growth with less cell death. Nanozyme assay with the condition at pH 7 using a.NBT/BCIP as substrate. NBT/BCIP, and beet/beet SS, at 0.25mg/mL in the reaction. b. A soft agar assay.