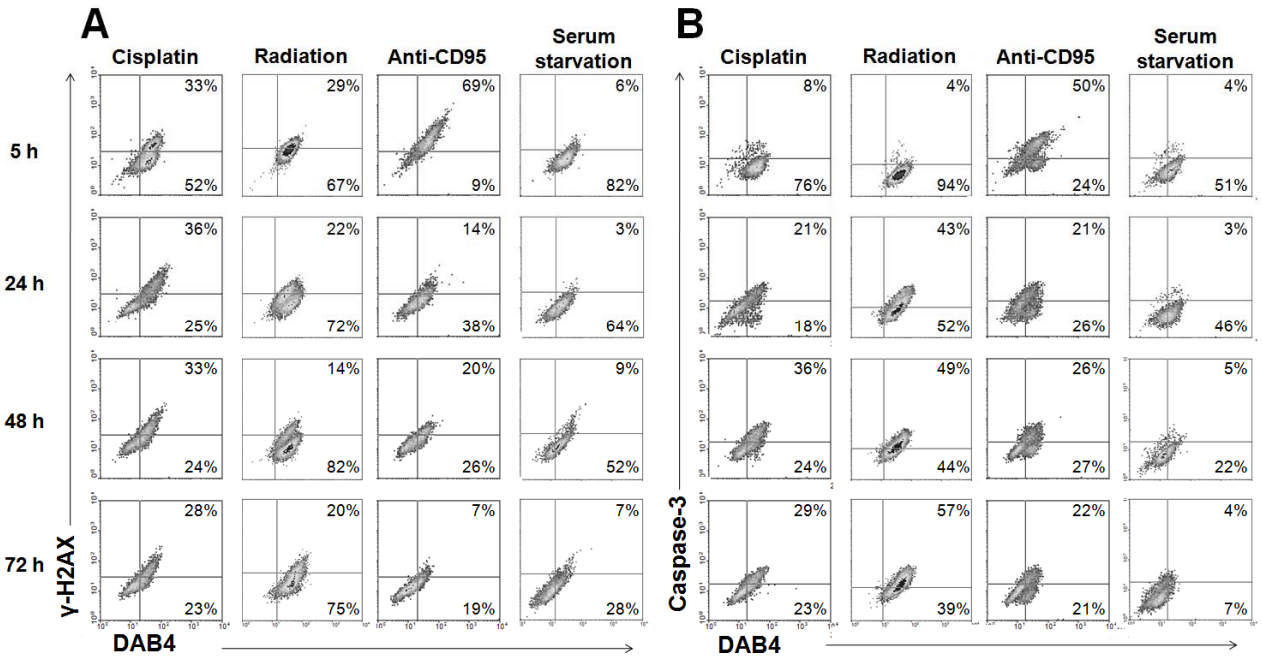
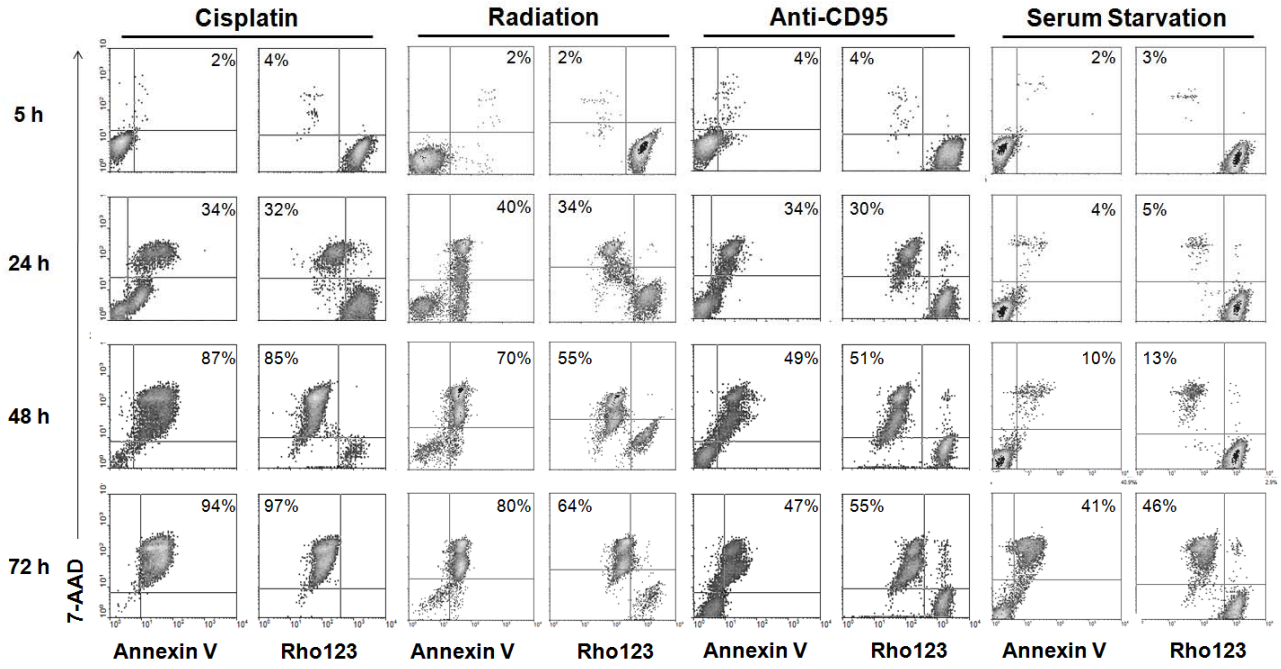


Supplemental Figure 1. Cellular binding of DAB4 is associated with induction of DNA DSB and apoptosis.

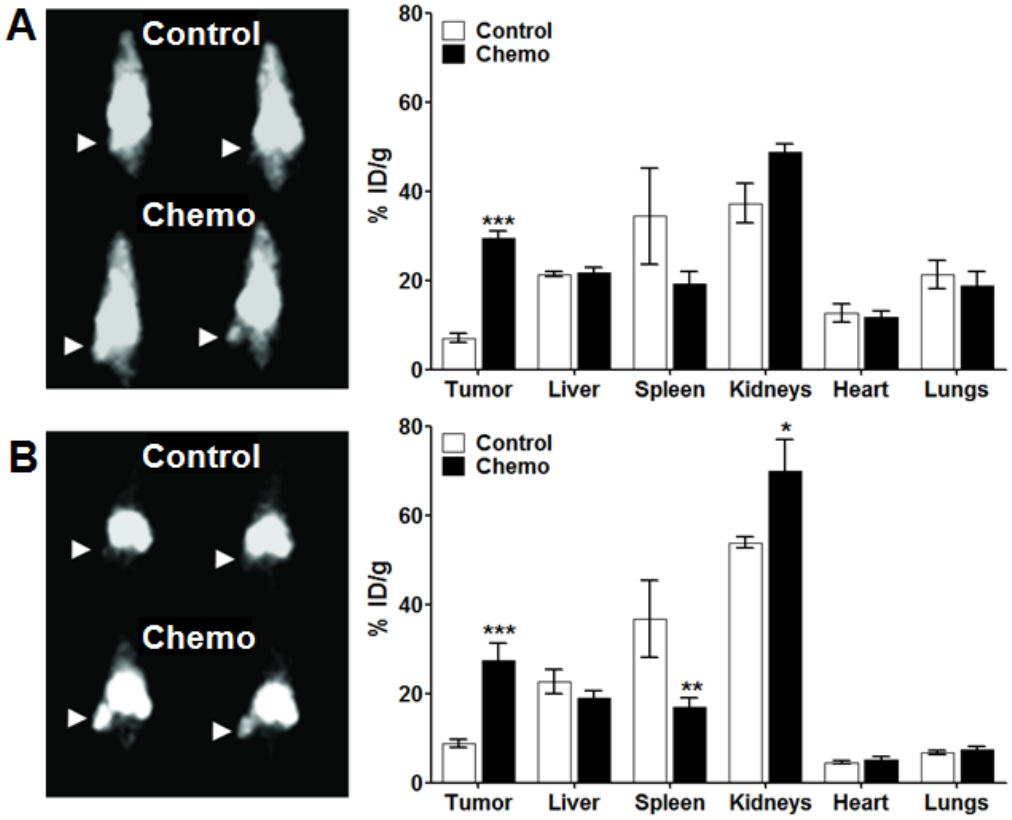
Jurkat cells were treated with 20 μg/mL cisplatin, ionizing radiation (15 Gy), 250 ng/mL anti-CD95 mAb, or deprived of serum in continuing culture. After fixation and permeabilization, cells were stained with DAB4 and (**A**) γ-H2AX or for (**B**) activated

caspase-3. Shown are representative density plots from three experiments. Quadrants were set based on negative control staining for γ-H2AX, activated caspase-3, or DAB4 binding to untreated cells.



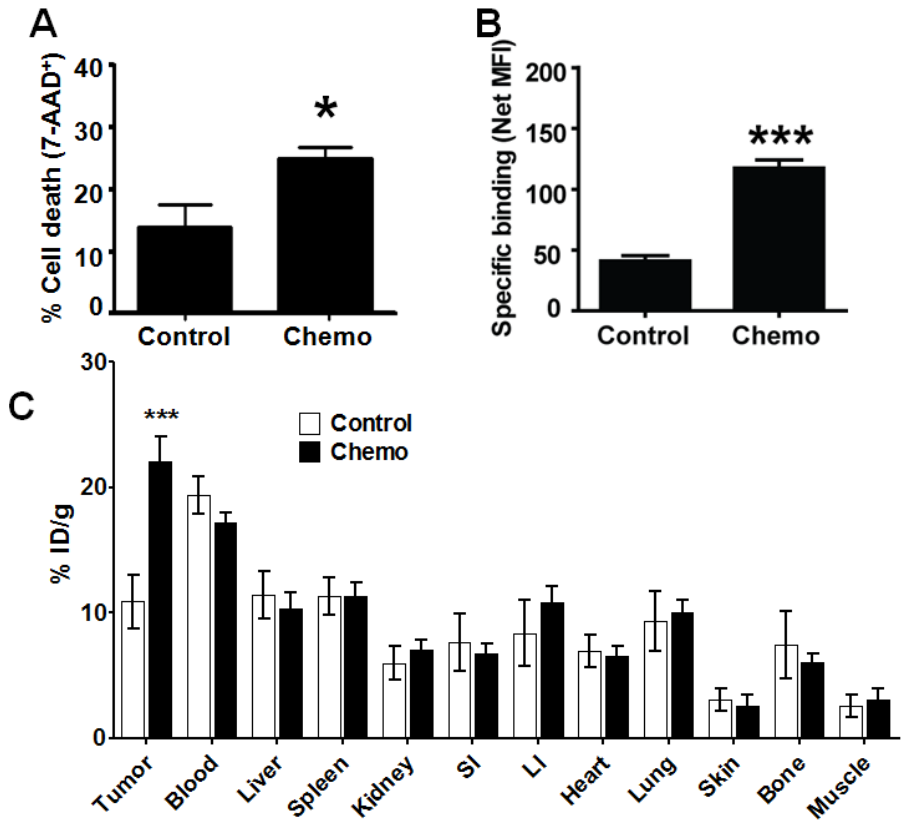
Supplemental Figure 2. Markers of cell death and apoptosis in Jurkat cells treated with cisplatin, ionizing radiation, anti-CD95 mAb, or serum starvation.

Jurkat cells were treated with 20 μg/mL cisplatin, ionizing radiation (15 Gy), 250 ng/mL anti-CD95 mAb, or deprived of serum in continuing culture. Cells were collected and stained with 7-AAD and Annexin V-FITC or Rho123 and analyzed by flow cytometry. Shown are representative density plots (from three experiments) of staining with 7-AAD and Annexin-V or Rho123. Quadrants in each plot were set based on untreated cells.



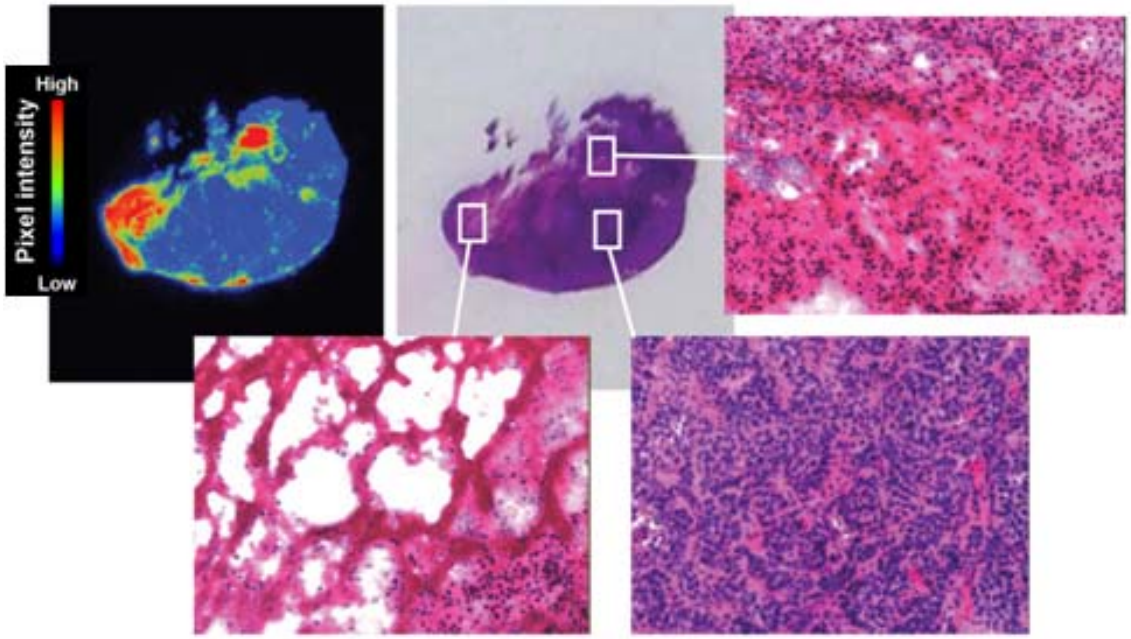
Supplemental Figure 3. Tumor localization of DAB4-F(ab)$_2$ fragments after chemotherapy.

EL4 tumor-bearing C57BL/6 mice were untreated (Control) or treated with cyclophosphamide and etoposide (Chemo) i.v. 50 μg biotinylated DAB4-F(ab)$_2$ was administered 24 hours later. 50 μg ^{111}In-streptavidin (100 MBq/mg) was administered 24 hours later and γ-camera imaging and physical radioactivity counting was performed at (A) 2 hours or (B) 24 hours after ^{111}In-strepatividin administration. γ-camera images shown are for 2 of 3 mice in each treatment group and tumors are indicated (arrow heads). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.



Supplemental Figure 4. Biodistribution of radiolabeled DAB4 in mice bearing human pancreatic carcinoma xenografts.

Balb/c nude mice bearing Panc-1 tumors were untreated (control) or treated with 150 mg/kg gemcitabine and 6 mg/kg cisplatin. Tumors were collected 48 hours later for (**A**) flow cytometric analysis of tumor cell death and (**B**) specific binding of DAB4 to dead ($7\text{-}AAD^{+}$) cells (n = 3). (**C**) After chemotherapy, mice received ^{111}In-DOTA-DAB4, were euthanized 48 hours later and the accumulation of radiolabeled antibody (%ID/g) in organs was measured (n = 5). * $p < 0.05$, *** $p < 0.001$. LI = large intestine; SI = small intestine.



Supplemental Figure 5. DAB4 binds within A431 human tumor xenografts.

Balb/c nude mice bearing A431 tumors were administered ^{177}Lu-DOTA-DAB4 (100 μg with a specific activity of 90 MBq/mg), euthanized 48 hours later, and tumors were excised. Tumors were sectioned and analyzed using high-resolution β-autoradiography followed by hematoxylin and eosin staining (n = 2).