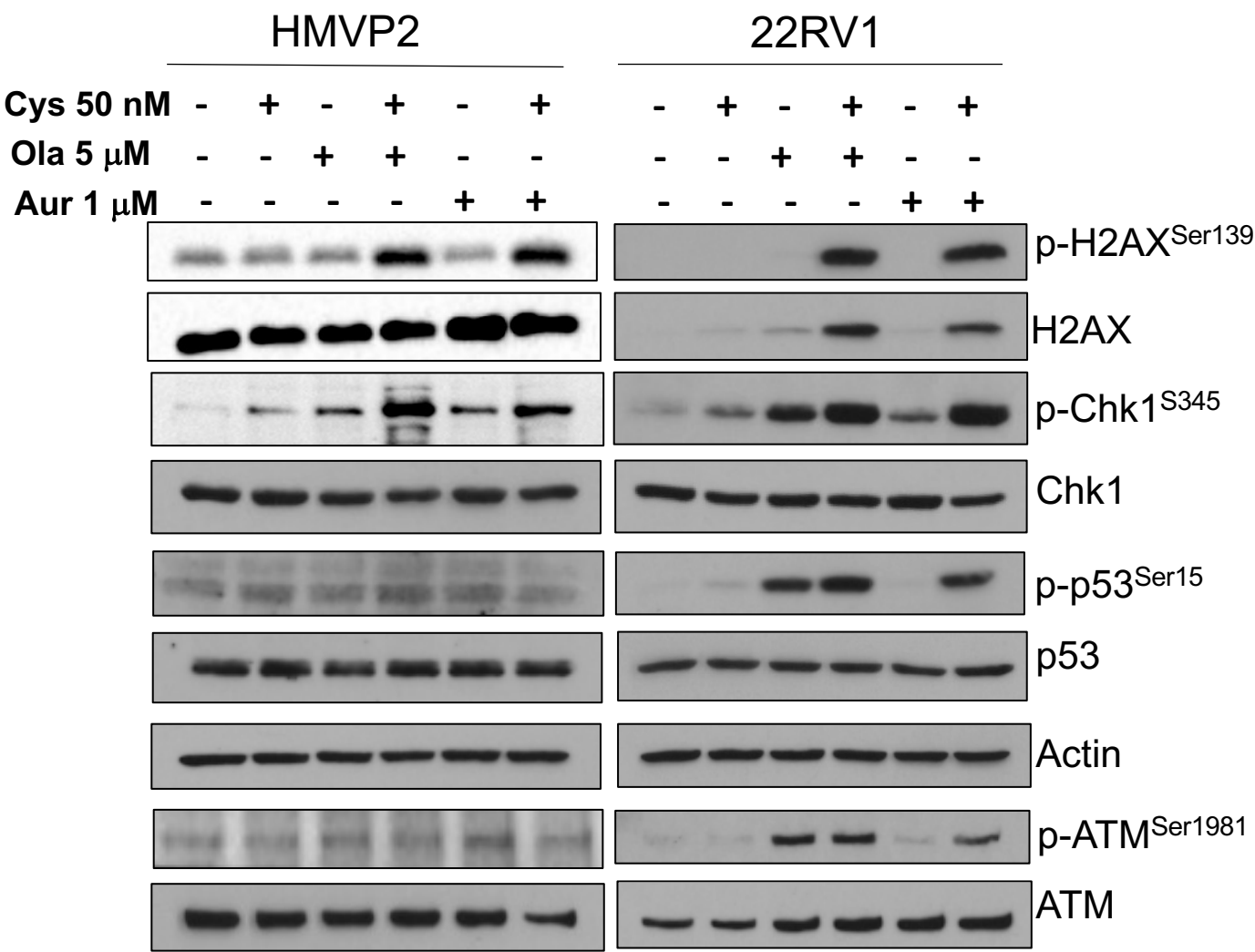
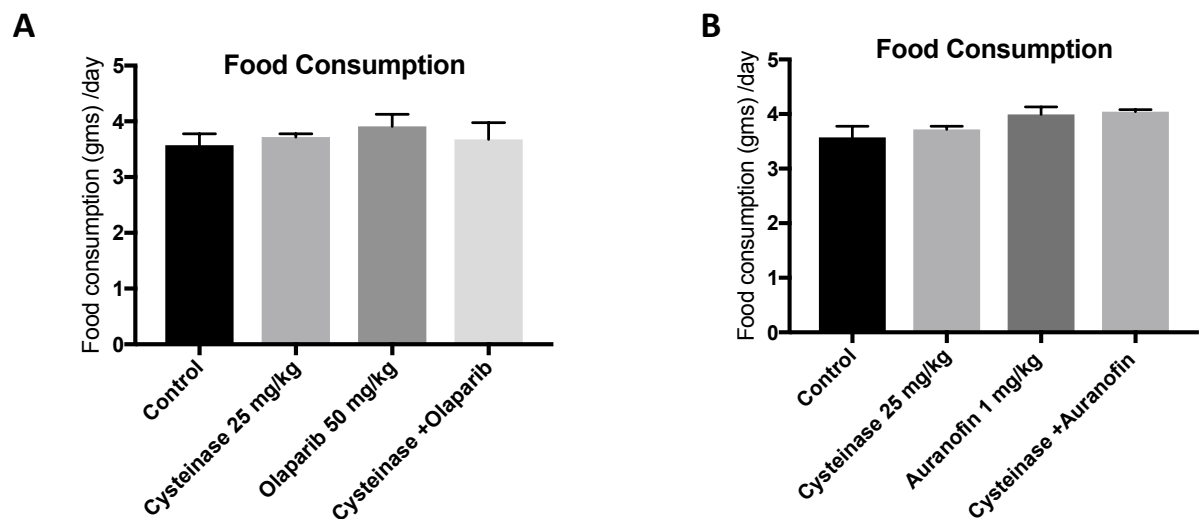


Figure S1



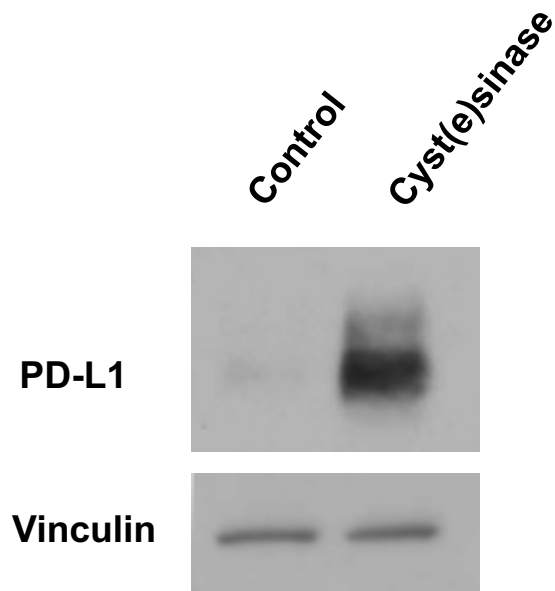
**Supplemental Figure 1. Alteration of DNA damage related proteins after treatment of combination of Cyst(e)inase with Olaparib or Auranofin.** Cells were treated with indicated concentrations of Cys, Ola, Aur or their combinations for 24h and subjected to Westren blot analyses of total and phospho proteins.

Figure S2



**Supplemental Figure 2. Cyst(e)inase synergistically inhibits growth of 22Rv1 PCa xenografts in combination with Olaparib or Auranofin without toxicity.** A, Average food consumptions in 22Rv1 xenograft tumors study in male nude mice treated with **A**, vehicle control, Cys, Ola, Cys+Ola or **B**, vehicle control, Cys, Aur, Cys+Aur.

**Figure S3**



**Supplemental Figure 3: Cyst(e)inase treatment of HMVP2 allograft tumors leads to increased expression of PD-L1.** Protein was isolated from pooled tumors of control (vehicle treated) and Cyst(e)inase treated mice and subjected to Western blot analyses with anti-PD-L1 antibody (Abcam, 1:1000 dilution) and further processed as described in the Methods section.