

## SUPPLEMENTAL FIGURE LEGENDS

**Figure S1.** Antitumor effect of i.t. rRp450 in human xenograft models. PBS control (**a,c**) or virus (**b,d**) was directly injected into (**a,b**) rhabdomyosarcoma (Rh18) and (**c,d**) neuroblastoma (CHLA-20) tumors. Tumor size for each individual mouse is shown. Initial response is categorized as complete response (CR, no detectable mass), partial response (PR, tumor volume decreased by >50%), stable disease (SD, tumor volume remained  $\pm$ 50%), and progressive disease (PD, tumor volume increased by >50%). One mouse in the CHLA-20 PBS-treated group was sacrificed early due to extensive intratumoral hemorrhage (\*). One mouse in each virus-treated group that had a CR of the injected tumor had a second tumor regrow at a site separate from the original tumor; therefore, these were classified as CR (\*\*).  $p < 0.03$  for response rates of treated groups relative to untreated groups (Fisher exact test).

**Figure S2.** Cytopenia time-course for CPA at 50 mg/kg in FVB/N mice. Blood counts were obtained by cardiac puncture in untreated animals (n=10) and animals sacrificed at times indicated after treatment with i.p. 50 mg/kg cyclophosphamide (n=3 at each time point). Averages with standard deviations are shown. As shown by the p values, the decrease in ANC at day 6 reached statistical significance; for WBC and ALC the differences trended toward significance.

**Figure S3.** Effect of rRp450 injection on mouse weight. rRp450 was given (**a**) i.v., (**b**), i.c., or (**c**) i.c. followed 24 h later by i.p. CPM and animals were weighed at the times indicated.

**Figure S4.** Effect of intravenous rRp450 on blood counts 28 days after virus infusion. Female mice were given  $10^8$  p.f.u. by tail vein and euthanised at 28 days.

**Figure S5.** Effect of i.t. rRp450 on blood counts. Tumor-bearing mice were injected i.t. with PBS or  $10^8$  p.f.u. of rRp450 and compared with normal mice. The tumors were syngeneic rhabdomyosarcomas from the cell line MR848, derived from a tumor that arose in a genetically susceptible (transgenic for hepatocyte growth factor and deleted for p53) FVB/N mouse. Because of rapid tumor progression, the latest time point we were able to examine in mice bearing tumors injected with PBS was 9 days after virus injection. Mice bearing tumors injected with rRp450 showed a mild response to therapy in this aggressive tumor model and were therefore evaluated somewhat later at 14 days. *P* values were determined by the standard student's *t* test.

**Figure S6.** Effect of rRp450 injection on serum electrolytes. Electrolytes were measured at indicated days post virus injection. The route of virus injection was either **(a,b)** i.v. or **(c)** i.t. Standard deviation is shown.

**Figure S7.** Effect of rRp450 injection on liver and renal function tests. Serum was collected on day **(a,b)** 4 or **(c,d)** 29. Standard deviation is shown.

**Figure S8.** Virus-induced cytopathic effect in a kidney following wild-type KOS i.v. injection. Kidney sections were stained with **(a)** cresyl violet, showing cytopathic effect and neutrophilic infiltration, and **(b)** anti-HSV antibody, revealing multiple foci of virus-infected cells (purple).















