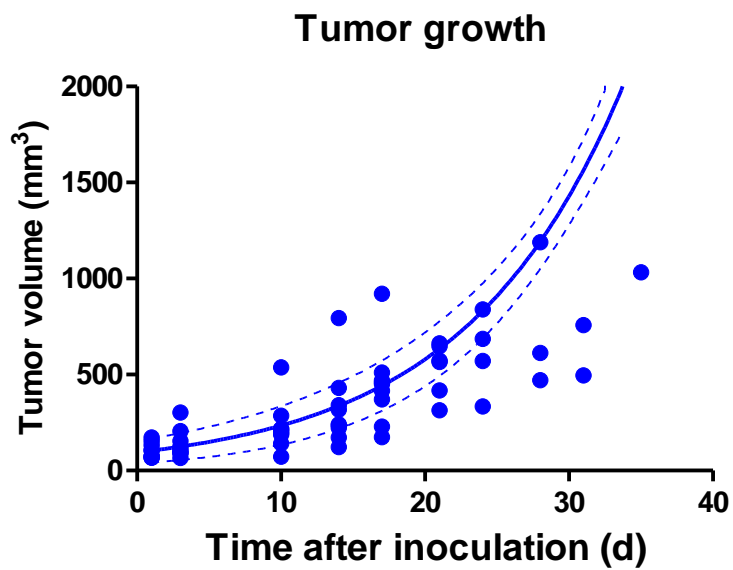


Supplemental Fig.1 Evaluation of distribution of ^{177}Lu -HP2 in kidneys. Two BALB/C nu/nu mice were injected with $100\ \mu\text{g}$ ($7.6\ \text{nmol}$) $Z_{\text{HER2}:342}\text{-SR-HP1}$ each. ^{177}Lu -HP2, $3\ \mu\text{g}$ ($1\ \text{MBq}$) per mouse, was injected 16 h later. Animals were sacrificed 1 h after injection of ^{177}Lu -HP2. Kidneys were excised and $20\ \mu\text{m}$ -cryosections were prepared. Distribution of radioactivity in the sections was measured by digital autoradiography using a Cyclone Storage Phosphor System (PerkinElmer). (A) and (C) show digital autoradiography of a kidney. (B) and (D) show distribution of radioactivity along the lines marked in (A) and (C), respectively.



Supplemental Fig.2 SKOV-3 xenograft growth data, which were used for calculations of absorbed doses to tumors.