



Supplementary Figure S6. PSMA expression in tumors with different fractions of PSMA-positive cells and growth of untreated tumors in study 4. PSMA expression of tumors (n=3 tumors/group) resected two days after ²²⁵Ac-PSMA617 RLT was determined by IHC. **(A)** PSMA expression by IHC in the different experimental groups (100% vs. 66%, p=0.0876; 66% vs. 33%, p=0.0910; 33% vs. 0%, p=0.0880). **(B)** ²²⁵Ac-PSMA617 uptake correlates with PSMA expression (IHC). Polynomic regression analysis (dotted line) resulted in an R²=0.9063. **(C)** Representative IHC images. Brown staining indicated PSMA positivity. **(C)** *In vivo* tumor growth characteristics do not differ

between tumors with different fractions of PSMA-positive cells. PSMA- and PSMA⁺⁺⁺ cells were mixed at different ratios and s.c. injected into NSG mice. Tumor volume was monitored by CT 3x/ week starting on day 5 after inoculation. Relative tumor volumes (compared to tumor volume at baseline/ day 5) are shown (5 mice/group). Differences between groups were statistically not significant (for all, $p \geq 0.94$). Graphs represent mean \pm SD. Asterisks indicate statistically significant differences. The numbers 0, 33, 66, 100%, respectively, indicate the percentage of PSMA-positive cells injected (vs. PSMA-negative cells).