U-87 glioma xenografts were grown s.c. to 200 mm³ and focally irradiated with 6 Gy. One day post irradiation 1.5 % Evans Blue Dye was injected systemically and allowed to circulate for 45 min. Mice were perfused with PBS and control (n=7) and irradiated (n=6) tumors were harvested. Evans Blue Dye was extracted from tumors tissue with N, N- Dimethylformamide and quantitated spectrometrically at 620 nm. All values were normalized to dye extracted from the spleen of the same mouse.