

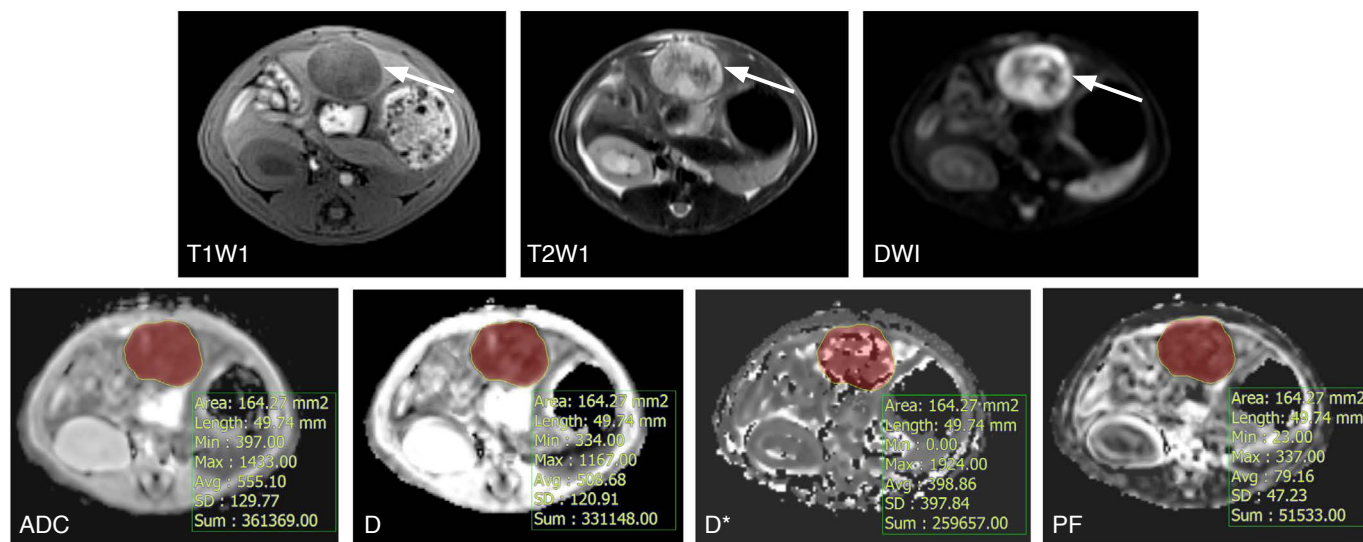
**Supplementary Table 3.** Correlations between histopathologic parameters and IVIM-DWI or CEUS parameters after second treatment

Post- second treatment IVIM-DWI or SonoVue CEUS parameter	Histopathologic parameter					
	Normalized necrotic fraction (%/cm <sup>3</sup> )			Normalized apoptotic cell fraction (%/cm <sup>3</sup> )		
	r	P	No.	r	P	No.
ADC (10 <sup>-6</sup> mm <sup>2</sup> /s)	0.539	0.003	28	0.653	0.000	28
D (10 <sup>-6</sup> mm <sup>2</sup> /s)	0.471	0.012	28	0.608	0.001	28
D* (10 <sup>-5</sup> mm <sup>2</sup> /s)	-0.070	0.723	28	0.273	0.160	28
PF (%)	0.521	0.005	28	0.544	0.003	28
PE (au) <sup>a)</sup>	-0.061	0.769	26	-0.182	0.373	26
WiAUC (au) <sup>a)</sup>	-0.277	0.171	26	-0.257	0.204	26
RT (s) <sup>a)</sup>	-0.242	0.234	26	-0.154	0.452	26
mTTI (s) <sup>a)</sup>	-0.307	0.127	26	-0.396	0.045	26
TTP (s) <sup>a)</sup>	-0.225	0.269	26	0.082	0.692	26
WiR (au) <sup>a)</sup>	0.004	0.986	26	-0.189	0.355	26
WiPI (au) <sup>a)</sup>	-0.065	0.754	26	-0.186	0.364	26

Data are Spearman's coefficient rank correlations (rho), and P-values were obtained from Spearman rank correlation testing. P<0.05: statistically significant correlation coefficients.

IVIM, intravoxel incoherent motion; DWI, diffusion-weighted magnetic resonance imaging; CEUS, contrast-enhanced ultrasound; ADC, apparent diffusion coefficient; D, true diffusion coefficient; D\*, pseudodiffusion coefficient; PF, perfusion fraction; PE, peak enhancement; WiAUC, wash-in area under the curve; RT, rise time; mTTI, mean transit time local; TTP, time to peak; WiR, wash-in rate; WiPI, wash-in perfusion index.

<sup>a)</sup>In two rats, CEUS perfusion parameters could not be obtained.



**Supplementary Fig. 1.** Representative magnetic resonance images of a rat with orthotopic N1-S1 tumor and measurement of intravoxel incoherent motion diffusion-weighted magnetic resonance imaging parameters. Transverse images of unenhanced T1-weighted (T1WI) volumetric interpolated breath-hold examination, T2-weighted (T2WI) turbo spin-echo, and diffusion-weighted imaging (DWI) depict the orthotopic tumor in the rat liver (arrows). Apparent diffusion coefficient (ADC), true diffusion coefficient (D), pseudodiffusion coefficient (D\*), and perfusion fraction (PF) values of tumors were measured by drawing a region of interest outlining the tumor border on the representative section with the largest cross-section of the tumor on each map.