

**Table S1** Interobserver agreement of the measurements between 2 observers

Parameters	LGG		HGG	
	ICC	95% CI	ICC	95% CI
<b>rSUV<sub>max</sub></b>				
Solid	0.890	0.826–0.930	0.876	0.825–0.912
PTR <sub>5</sub>	0.956	0.941–0.967	0.962	0.950–0.972
PTR <sub>10</sub>	0.961	0.948–0.971	0.913	0.885–0.935
PTR <sub>15</sub>	0.892	0.857–0.918	0.953	0.938–0.965
PTR <sub>20</sub>	0.922	0.884–0.961	0.822	0.718–0.888
<b>rADC<sub>min</sub></b>				
Solid	0.894	0.831–0.933	0.906	0.843–0.943
PTR <sub>5</sub>	0.879	0.809–0.924	0.985	0.980–0.989
PTR <sub>10</sub>	0.935	0.913–0.951	0.924	0.899–0.943
PTR <sub>15</sub>	0.914	0.872–0.942	0.894	0.831–0.933
PTR <sub>20</sub>	0.954	0.939–0.966	0.917	0.890–0.937
<b>rCBF</b>				
Solid	0.930	0.907–0.948	0.920	0.895–0.940
PTR <sub>5</sub>	0.810	0.690–0.880	0.785	0.705–0.857
PTR <sub>10</sub>	0.889	0.836–0.926	0.919	0.893–0.939
PTR <sub>15</sub>	0.876	0.825–0.912	0.852	0.765–0.906
PTR <sub>20</sub>	0.908	0.863–0.908	0.902	0.853–0.931

LGG, low-grade glioma; ICC, intraclass correlation coefficient; CI, confidence intervals; HGG, high-grade glioma; rSUV<sub>max</sub>, relative maximum standardized uptake value; PTR<sub>5</sub>, the 5-mm PTR; PTR<sub>10</sub>, the 10-mm PTR; PTR<sub>15</sub>, the 15-mm PTR; PTR<sub>20</sub>, the 20-mm PTR; PTR, peritumoral region; rADC<sub>min</sub>, relative minimum apparent diffusion coefficient; rCBF, relative cerebral blood flow.

**Table S2** Group differences for single parameter in single tumor region

Parameters	HGG (n=41)	LGG (n=35)	P value
rSUV <sub>max</sub>			
Solid	1.82±0.42	1.06±0.44	<0.000*
PTR <sub>5</sub>	1.50±0.28	1.15±0.37	<0.000*
PTR <sub>10</sub>	1.31±0.37	1.17±0.41	<0.000*
PTR <sub>15</sub>	1.21±0.40	1.15±0.40	0.099
PTR <sub>20</sub>	1.27±0.39	1.21±0.36	0.072
rADC <sub>min</sub>			
Solid	1.21±0.11	1.41±0.88	<0.001*
PTR <sub>5</sub>	1.31±0.17	1.45±0.29	<0.001*
PTR <sub>10</sub>	1.38±0.18	1.46±0.22	0.011
PTR <sub>15</sub>	1.42±0.17	1.39±0.19	0.207
PTR <sub>20</sub>	1.37±0.22	1.41±0.20	0.106
rCBF			
Solid	3.34±1.49	1.14±0.94	<0.000*
PTR <sub>5</sub>	1.78±1.22	1.22±0.63	<0.000*
PTR <sub>10</sub>	1.26±0.78	1.02±0.84	0.002*
PTR <sub>15</sub>	1.39±1.14	1.20±0.20	0.068
PTR <sub>20</sub>	1.19±0.74	1.10±0.76	0.210

Data are represented as mean ± SD. \*, significant difference. HGG, high-grade glioma; LGG, low-grade glioma; rSUV<sub>max</sub>, relative maximum standardized uptake value; PTR<sub>5</sub>, the 5-mm PTR; PTR<sub>10</sub>, the 10-mm PTR; PTR<sub>15</sub>, the 15-mm PTR; PTR<sub>20</sub>, the 20-mm PTR; PTR, peritumoral region; rADC<sub>min</sub>, relative minimum apparent diffusion coefficient; rCBF, relative cerebral blood flow; SD, standard deviation.