

Kinetic model	AIC best model	Spectral analysis # of compartments	2T4K			3T5KS			Logan plot	2T3K	SUV (60-90 min)
			Vt	K1/k2	BP	K1/k2	k5	Ki	Vt	Ki	SUV
AN01											
Gluteal	2T4K	3	0.379	0.100	2.782	0.090	0.009	0.0014	0.380	0.0022	0.636
Gluteal retest	3T5KS	2	0.411	0.117	2.504	0.081	0.018	0.0018	0.357	0.0021	0.666
Gluteal ratio t/rt			1.086	1.173	0.900	0.898	1.890	1.247	0.939	0.916	1.047
Quadriceps	2T4K	3	0.332	0.079	3.194	0.073	0.011	0.0013	0.326	0.0020	0.509
Quadriceps retest	3T5KS	2	0.340	0.091	2.725	0.074	0.022	0.0014	0.281	0.0017	0.512
Quadriceps ratio t/rt			1.025	1.154	0.853	1.012	1.909	1.104	0.863	0.846	1.006
AN02											
Gluteal	3T5KS	3	0.357	0.120	1.966	0.102	0.021	0.0016	0.324	0.0020	0.573
Gluteal retest	3T5KS	3	0.401	0.138	1.903	0.105	0.021	0.0017	0.338	0.0020	0.630
Gluteal ratio t/rt			1.126	1.150	0.968	1.029	1.000	1.080	1.042	1.020	1.101
Quadriceps	3T5KS	3	0.453	0.093	3.866	0.085	0.030	0.0019	0.339	0.0023	0.568
Quadriceps retest	3T5KS	3	0.425	0.108	2.923	0.086	0.030	0.0017	0.312	0.0020	0.556
Quadriceps ratio t/rt			0.938	1.164	0.756	1.011	1.006	0.917	0.919	0.876	0.979
AN03											
Gluteal	3T5KS	3	0.367	0.090	3.063	0.075	0.020	0.0018	0.335	0.0023	0.690
Gluteal retest	3T5KS	4	0.378	0.086	3.386	0.073	0.019	0.0018	0.339	0.0023	0.690
Gluteal ratio t/rt			1.030	0.955	1.105	0.969	0.954	0.987	1.012	0.997	1.001
Quadriceps	3T5KS	3	0.486	0.082	4.934	0.071	0.036	0.0021	0.380	0.0024	0.692
Quadriceps retest	3T5KS	4	0.467	0.086	4.410	0.077	0.034	0.0019	0.337	0.0022	0.650
Quadriceps ratio t/rt			0.963	1.056	0.894	1.092	0.935	0.895	0.889	0.898	0.940
AN04											
Gluteal	3T5KS	3	0.329	0.091	2.617	0.061	0.020	0.0015	0.288	0.0018	0.516

Gluteal retest	2T4K	3	0.288	0.083	2.467	0.053	0.014	0.0013	0.272	0.0017	0.563
Gluteal ratio t/rt			0.877	0.915	0.942	0.873	0.714	0.881	0.943	0.950	1.092
Quadriceps	3T5KS	3	0.327	0.078	3.173	0.072	0.025	0.0013	0.252	0.0016	0.424
Quadriceps retest	2T4K	3	0.295	0.082	2.588	0.058	0.024	0.0012	0.229	0.0014	0.452
Quadriceps ratio t/rt			0.904	1.051	0.816	0.808	0.956	0.942	0.909	0.875	1.064
AN05											
Gluteal	3T5KS	3	0.446	0.091	3.885	0.075	0.021	0.0022	0.406	0.0028	0.737
Gluteal retest	3T5KS	4	0.442	0.089	3.959	0.070	0.021	0.0021	0.403	0.0026	0.745
Gluteal ratio t/rt			0.992	0.977	1.019	0.932	1.008	0.960	0.993	0.936	1.011
Quadriceps	3T5KS	3	0.491	0.073	5.762	0.061	0.037	0.0022	0.409	0.0025	0.656
Quadriceps retest	3T5KS	4	0.451	0.075	4.976	0.065	0.029	0.0019	0.360	0.0022	0.636
Quadriceps ratio t/rt			0.917	1.038	0.864	1.071	0.772	0.857	0.879	0.886	0.970
AN06											
Gluteal	3T5KS	4	0.268	0.093	1.866	0.081	0.019	0.0012	0.246	0.0015	0.607
Gluteal retest	3T5KS	3	0.267	0.088	2.022	0.077	0.018	0.0011	0.233	0.0015	0.643
Gluteal ratio t/rt			0.997	0.946	1.083	0.954	0.951	0.964	0.945	1.004	1.060
Quadriceps	3T5KS	4	0.248	0.065	2.788	0.061	0.028	0.0011	0.210	0.0013	0.498
Quadriceps retest	2T4K	3	0.293	0.074	2.963	0.071	0.030	0.0011	0.207	0.0013	0.534
Quadriceps ratio t/rt			1.182	1.130	1.063	1.158	1.079	0.958	0.985	0.952	1.071
average change Gluteal			1.018	1.019	1.003	0.942	1.086	1.020	0.979	0.970	1.052
STD			8.6%	11.2%	8.1%	5.5%	40.9%	12.8%	4.3%	4.2%	4.1%
TRT %			6.2	8.5	6.6	7.0	17.6	8.6	4.0	3.9	5.0
average change Quadriceps			0.988	1.099	0.874	1.025	1.110	0.945	0.907	0.889	1.005

STD	10.4%	5.7%	10.4%	12.0%	40.5%	8.5%	4.3%	3.6%	5.3%
TRT %	5.1	5.1	7.5	7.9	23.5	4.0	4.6	3.9	2.6

Supplemental Table 1. Kinetic modeling parameters for test-retest studies of SMGU.

AIC – Akaike Information Criterion; best fit model is indicated in the second column. 2T3K – two tissue irreversible model, 2T4K – two tissue reversible model, 3T5KS – three tissue sequential irreversible model, TRT – test-retest variability, AN01-06: each individual.