

Supplemental Table 1. Unconstrained two-tissue compartment model using two hours of data: rate constants, distribution volumes, and goodness of fit in eleven brain regions

Region	Rate constants				Distribution volumes		Goodness of fit	
	$K_1$ (mL • cm <sup>-3</sup> • min <sup>-1</sup> ) (SE(%))	$k_2$ (min <sup>-1</sup> ) (SE(%))	$k_3$ (min <sup>-1</sup> ) (SE(%))	$k_4$ (min <sup>-1</sup> ) (SE(%))	$BP_{ND}$ (unitless) (SE(%))	$V_T$ (mL • cm <sup>-3</sup> ) (SE(%))	AIC	MSC
Frontal cortex	0.06 ± 0.02 ( 4.0 )	0.21 ± 0.25 ( 10.6 )	0.139 ± 0.18 ( 10.3 )	0.023 ± 0.012 ( 6.1 )	5.0 ± 2.4 ( 8.4 )	2.1 ± 0.6 ( 2.2 )	136 ± 18	4.0 ± 0.8
Parietal cortex	0.06 ± 0.026 ( 3.4 )	0.21 ± 0.26 ( 9.7 )	0.127 ± 0.15 ( 10.6 )	0.024 ± 0.013 ( 5.8 )	4.6 ± 1.8 ( 8.3 )	2.1 ± 0.6 ( 2.1 )	139 ± 20	4.1 ± 0.9
Occipital cortex	0.10 ± 0.036 ( 5.1 )	0.34 ± 0.33 ( 10.8 )	0.141 ± 0.12 ( 10.3 )	0.026 ± 0.011 ( 5.5 )	5.1 ± 1.8 ( 8.4 )	2.2 ± 0.7 ( 2.0 )	174 ± 19	3.8 ± 0.6
Temporal cortex*	0.07 ± 0.027 ( 4.2 )	0.27 ± 0.33 ( 10.3 )	0.152 ± 0.17 ( 10.3 )	0.024 ± 0.011 ( 5.4 )	5.6 ± 2.5 ( 8.5 )	2.3 ± 0.6 ( 2.0 )	150 ± 17	3.9 ± 0.7
Medial Temporal cortex	0.05 ± 0.01 ( 5.1 )	0.18 ± 0.09 ( 14.9 )	0.115 ± 0.06 ( 13.4 )	0.021 ± 0.011 ( 8.2 )	5.7 ± 1.3 ( 11.7 )	2.1 ± 0.7 ( 3.5 )	148 ± 16	3.2 ± 0.9
Caudate	0.06 ± 0.03 ( 6.2 )	0.34 ± 0.66 ( 14.6 )	0.136 ± 0.23 ( 18.8 )	0.022 ± 0.012 ( 13.3 )	4.5 ± 3.9 ( 12.4 )	1.7 ± 0.4 ( 4.9 )	170 ± 13	3.1 ± 0.5
Putamen	0.07 ± 0.02 ( 6.1 )	0.19 ± 0.15 ( 17.7 )	0.107 ± 0.10 ( 17.5 )	0.027 ± 0.014 ( 9.3 )	3.7 ± 1.4 ( 14.7 )	2.0 ± 0.6 ( 3.0 )	176 ± 14	3.4 ± 0.7
Cingulate	0.07 ± 0.03 ( 6.0 )	0.25 ± 0.18 ( 15.7 )	0.133 ± 0.10 ( 18.8 )	0.024 ± 0.012 ( 7.2 )	5.3 ± 1.2 ( 11.9 )	2.1 ± 0.6 ( 2.7 )	165 ± 11	3.4 ± 0.5
Thalamus	0.06 ± 0.02 ( 4.3 )	0.24 ± 0.22 ( 11.5 )	0.133 ± 0.10 ( 9.4 )	0.020 ± 0.008 ( 5.3 )	6.3 ± 1.4 ( 8.6 )	2.4 ± 0.7 ( 2.1 )	142 ± 11	3.7 ± 0.8
Pons	0.10 ± 0.16 ( 5.3 )	0.81 ± 1.97 ( 13.8 )	0.133 ± 0.14 ( 12.9 )	0.015 ± 0.006 ( 8.7 )	7.9 ± 3.8 ( 10.7 )	2.4 ± 0.7 ( 4.5 )	151 ± 19	3.4 ± 0.6
Cerebellum	0.08 ± 0.02 ( 4.3 )	0.29 ± 0.25 ( 9.6 )	0.141 ± 0.13 ( 8.1 )	0.022 ± 0.007 ( 4.7 )	6.0 ± 2.9 ( 6.9 )	2.2 ± 0.7 ( 1.7 )	146 ± 27	4.1 ± 1.1

Values are mean ± SD from seven healthy subjects, and were calculated from 2 h brain and plasma data.

For each brain region, **percent standard error (SE(%))** is listed in parentheses below the variable and expressed as % of the variable itself.

Abbreviations: \* includes all of the temporal lobe except the medial temporal cortex.  $BP_{ND}$  binding potential relative to nondisplaceable uptake

$V_T$  total distribution volume; AIC Akaike Information Criterion; MSC Model Selection Criterion

