

Table 1 Regional model parameters relating to ¹¹C-flumazenil binding

1.0 MAC ISOFLURANE group (n = 7)

BRAIN REGION	DV _{RATIO}		ΔDV _{RATIO} (%)	K ₁ (ml g ⁻¹ min ⁻¹)		ΔK ₁ (%)	rCBF (ml/100gm brain tissue/min)		ΔrCBF (%)	
	Subject	Control		Isoflurane	Control		Isoflurane	Control		Isoflurane
OCCIPITAL										
	1	12.32	17.79	44.33	0.4861	0.2423	-50.15	NA	NA	NA
	2	14.67	18.64	27.04	0.3702	0.3209	-13.31	73.81	80.62	9.21
	3	17.69	17.94	1.42	0.4776	0.2692	-43.63	91.53	36.46	-60.22
	4	17.25	20.62	19.52	0.4172	0.2573	-38.32	37.12	83.33	124.53
	5	7.25	11.49	58.39	0.3322	0.2647	-20.31	51.55	45.47	-11.85
	6	7.85	9.05	15.30	0.3226	0.2186	-32.23	60.01	31.81	-47.00
	7	8.36	10.67	27.68	0.4481	0.3438	-23.27	62.03	39.64	-36.13
	mean±SD	12.20±4.47	15.17±4.61	27.67±18.84	0.4077±0.0671	0.2738±0.0438	-31.60±13.32	62.65±18.66	52.85±22.98	-3.58±67.52
TEMPORAL										
	1	11.16	16.70	49.56	0.3872	0.2324	-39.98	NA	NA	NA
	2	15.58	17.50	12.36	0.2598	0.2502	-3.70	47.13	75.62	60.51
	3	7.73	9.58	23.86	0.3261	0.2348	-28.00	64.42	37.34	-42.08
	4	11.23	13.72	22.22	0.3100	0.2361	-23.84	42.52	64.42	51.53
	5	7.58	11.58	52.83	0.2814	0.2312	-17.84	44.90	54.45	21.16
	6	7.84	9.19	17.24	0.2878	0.1837	-36.17	47.86	35.12	-26.57
	7	8.11	9.98	23.04	0.3154	0.2722	-13.70	46.97	36.56	-22.18
	mean±SD	9.89±2.97	12.47±3.43	28.73±15.88	0.3096±0.0410	0.2343±0.0267	-23.32±12.73	48.93±7.82	50.55±17.00	7.06±43.44
FRONTAL										
	1	12.51	18.04	44.23	0.4613	0.2840	-38.44	NA	NA	NA
	2	9.31	10.59	13.67	0.3226	0.2997	-7.10	64.00	90.20	40.94
	3	6.23	6.93	11.34	0.3344	0.2588	-22.61	66.34	36.42	-45.10
	4	17.30	20.69	19.63	0.3460	0.2540	-26.59	44.62	74.54	67.04
	5	7.76	11.51	48.21	0.3581	0.2669	-25.47	56.95	57.67	1.23
	6	7.88	9.17	16.36	0.3239	0.1993	-38.47	53.68	33.91	-36.75
	7	8.66	10.68	23.29	0.3835	0.3158	-17.65	59.21	36.60	-38.18
	mean±SD	9.89±3.77	12.47±4.96	25.25±14.88	0.3614±0.0489	0.2683±0.0377	-25.19±11.14	57.43±7.80	54.86±23.48	-1.80±46.89
THALAMUS										
	1	6.90	9.93	44.03	0.4324	0.2260	-47.73	NA	NA	NA
	2	5.03	5.63	12.03	0.2970	0.2508	-15.56	60.44	81.00	34.11
	3	5.56	6.14	10.45	0.3622	0.2502	-30.92	94.51	39.00	-58.73
	4	10.52	12.02	14.27	0.3258	0.2380	-26.95	43.86	72.72	65.98
	5	4.49	6.65	48.17	0.5245	0.2835	-45.95	64.12	55.16	-14.04
	6	4.10	4.56	11.23	0.3704	0.2204	-40.50	54.55	35.63	-34.68
	7	4.98	6.41	28.74	0.4790	0.3172	-33.78	58.41	35.65	-39.04
	mean±SD	5.94±2.20	7.22±2.64	24.12±16.29	0.3987±0.0829	0.2551±0.0343	-34.48±11.34	62.61±17.10	53.16±19.89	-7.73±48.02
CEREBELLUM										
	1	7.37	10.50	42.52	0.4279	0.2325	-45.67	NA	NA	NA
	2	10.88	12.10	11.22	0.2738	0.2367	-13.55	54.61	68.55	25.46
	3	6.87	7.50	9.12	0.3674	0.2603	-29.15	62.53	38.32	-38.72
	4	7.23	8.08	11.87	0.3380	0.2442	-27.75	45.00	78.53	74.44
	5	5.20	7.56	45.34	0.4825	0.2911	-39.67	51.71	57.74	11.61
	6	4.98	5.71	14.63	0.3660	0.2118	-42.13	51.21	34.00	-33.59
	7	5.91	7.18	21.46	0.4964	0.3392	-31.67	64.35	38.12	-40.75
	mean±SD	6.92±1.99	8.21±2.18	22.31±15.30	0.3931±0.0801	0.2594±0.0430	-32.80±10.88	54.88±7.32	52.51±18.49	-0.26±46.07
PONS										
	1	2.73	3.28	20.04	0.3184	0.1748	-45.10	NA	NA	NA
	2	1.55	1.72	11.23	0.1872	0.2362	26.18	43.53	65.00	49.43
	3	1.61	1.80	12.14	0.1548	0.1510	-2.45	49.65	41.73	-15.93
	4	4.30	4.88	13.63	0.1825	0.1490	-18.36	41.14	70.94	72.51
	5	2.29	2.67	16.99	0.4175	0.2676	-35.90	47.93	70.63	47.39
	6	1.73	1.96	12.89	0.2918	0.2300	-21.18	45.63	47.73	4.61
	7	1.96	2.48	26.62	0.3564	0.2956	-17.06	49.47	38.00	-23.08
	mean±SD	2.31±0.97	2.65±1.12	16.22±5.52	0.2726±0.0998	0.2148±0.0577	-16.27±23.23	46.18±3.42	55.65±14.92	22.49±39.29

Table 1 Continued

1.5 MAC ISOFLURANE group (n = 5)

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OCCIPITAL									
1	7.58	23.88	214.91	0.3160	0.4058	28.42	61.49	47.31	-23.06
2	11.45	26.02	127.26	0.3661	0.1943	-46.93	59.70	23.81	-60.12
3	15.75	28.80	82.80	0.4283	0.4132	-3.53	75.00	67.62	-9.84
4	16.81	28.14	67.40	0.4023	0.3741	-7.01	75.57	52.59	-30.41
5	12.07	22.14	83.37	0.3917	0.3512	-10.34	66.23	41.97	-36.63
mean±SD	12.73±3.69	25.80±2.81	115.15±60.07	0.3808±0.0426	0.3477±0.0893	-7.88±26.78	67.60±7.41	46.66±15.96	-32.01±18.61
TEMPORAL									
1	8.83	18.06	104.49	0.3600	0.3042	-15.49	47.59	40.87	-14.12
2	9.79	20.54	109.78	0.2222	0.1608	-27.64	36.23	19.70	-45.63
3	11.85	21.51	81.57	0.3456	0.2921	-15.46	60.53	50.23	-17.02
4	12.85	21.31	65.88	0.2662	0.1936	-27.26	50.00	27.22	-45.56
5	10.02	17.49	74.53	0.2690	0.1795	-33.28	45.49	21.45	-52.85
mean±SD	10.66±1.64	19.78±1.88	87.25±19.08	0.2926±0.0582	0.2272±0.0670	-23.85±7.99	48.05±8.75	31.89±13.19	-35.14±18.04
FRONTAL									
1	7.91	18.17	129.85	0.3814	0.4242	11.23	53.82	49.46	-8.10
2	9.43	21.51	128.05	0.3500	0.2340	-32.88	39.92	22.17	-44.46
3	11.02	20.23	83.58	0.2627	0.2010	-23.40	64.13	51.90	-19.07
4	11.60	20.37	75.56	0.2931	0.1815	-38.07	55.06	25.52	-53.65
5	10.26	18.66	81.77	0.3193	0.1746	-45.32	53.98	20.86	-61.36
mean±SD	10.04±1.45	19.78±1.36	99.76±26.82	0.3213±0.0466	0.2433±0.1039	-25.69±22.13	53.38±8.66	33.98±15.36	-37.33±22.82
THALAMUS									
1	4.97	11.60	133.41	0.3374	0.3788	12.26	56.86	55.96	-1.58
2	5.61	11.51	105.34	0.2878	0.1615	-43.89	46.93	26.84	-42.81
3	6.38	11.14	74.73	0.4282	0.2872	-32.93	74.98	61.01	-18.63
4	7.02	11.46	63.23	0.4176	0.2438	-41.62	67.02	43.13	-35.65
5	5.23	9.89	89.15	0.3900	0.2840	-27.17	55.91	37.87	-32.27
mean±SD	5.84±0.85	11.12±0.71	93.17±27.48	0.3722±0.0588	0.2736±0.0787	-26.67±22.78	60.34±10.85	44.96±13.79	-26.19±16.32
CEREBELLUM									
1	7.15	13.91	94.58	0.2777	0.3221	16.01	54.03	52.12	-3.54
2	7.77	15.66	101.42	0.2799	0.2266	-19.05	45.65	34.63	-24.14
3	9.06	16.03	76.98	0.4316	0.4375	1.38	75.57	78.66	4.09
4	9.53	15.06	58.03	0.3624	0.4065	12.18	63.70	66.71	4.73
5	7.70	13.57	76.30	0.3729	0.3156	-15.34	57.51	42.54	-26.03
mean±SD	8.24±1.00	14.84±1.07	81.45±17.08	0.3449±0.0658	0.3417±0.0832	-0.97±15.81	59.29±11.20	54.93±17.86	-8.98±15.07
PONS									
1	2.08	4.14	99.61	0.2132	0.3425	60.64	41.49	52.36	26.20
2	2.23	3.74	68.11	0.1725	0.1400	-18.84	42.37	27.00	-36.28
3	2.68	5.12	91.48	0.2950	0.3210	8.81	53.62	66.37	23.78
4	2.11	3.62	75.96	0.2600	0.3055	17.50	49.40	58.63	18.68
5	2.26	3.91	72.88	0.1100	0.1400	27.27	51.68	46.69	-9.66
mean±SD	2.70±0.24	4.13±0.59	81.61±13.34	0.2130±0.0727	0.2422±0.1011	19.85±28.90	47.71±5.49	50.21±14.90	4.55±26.96

For all brain areas, ¹¹C-FMZ distribution volume ratio (DV_{RATIO}), blood-to-brain transfer constant (K₁), and regional cerebral blood flow (rCBF) values from right and left regions were averaged. Cerebellum, cerebellar cortex; frontal, gyrus frontalis inferior; NA, not available; occipital, gyrus occipitalis lateralis; SD, standard deviation; temporal, gyrus temporalis inferior.