Supplementary Table S1.

Mean regional metabolite concentrations [1] and tissue distributions with associated intra-subject COVs [2] by using multi-voxel analysis based on lobar level anatomic regions, and line with threshold of 11 Hz.

Region[3,4]	NAA		tCho		tCr		Glx		mI		CSF		GM		WM		LW	
	Mean	COV	Mean	COV	Mean	COV	Mean	COV	Mean	COV	Mean	COV	Mean	COV	Mean	COV	Mean	COV
RFL	10.34	3.84	2	4.39	8.17	4.42	8.94	2.92	4.76	15.03	0.15	5.73	0.39	1.34	0.45	1.68	7.17	2.7
LFL	10.17	1.9	1.93	4.43	8.06	4.03	8.66	2.67	4.59	11.53	0.16	1.63	0.39	1.87	0.44	1.6	7.02	4.33
RTL	8.35	4.74	1.68	2.93	6.79	4.05	7.64	5.08	4.87	3.06	0.1	8.17	0.43	0.99	0.46	1.61	7.02	2.39
LTL	8.63	3.19	1.7	3.13	7.03	1.77	7.61	8.6	4.65	5.62	0.11	5.62	0.41	2.9	0.48	3.5	6.56	4.09
RPL	10.19	1.94	1.52	4.27	7.33	3.87	8.06	4.32	4.4	6.54	0.14	2.5	0.39	0.7	0.46	0.97	5.83	6.01
LPL	10.38	4.34	1.54	4.56	7.54	4.09	8.47	4.01	4.65	4.04	0.16	2.31	0.4	1	0.43	1.05	6.04	7.15
ROL	10.34	2.05	1.21	4.19	7.27	1.5	7.56	3.39	4.7	2.91	0.09	3.09	0.4	1.09	0.5	0.54	5.86	2.15
LOL	10.42	4.21	1.23	3.45	7.57	3.78	7.9	3.54	4.68	6.3	0.09	4.93	0.41	1.1	0.49	1.06	5.8	4.59
Cbl	7.72	2.22	2.18	2.33	8.72	2.96	7.94	4.06	5.25	5.61	0.15	4.27	0.41	1.98	0.43	3.03	6.23	3.84
Region[5]	Mean	COV	Mean	COV	Mean	COV	Mean	COV	Mean	COV	Mean	COV	Mean	COV	Mean	COV	Mean	COV
RFL	10.38	4.13	1.93	7.81	8.22	7.35	8.1	6.89	4.54	12.08	0.14	13.4	0.39	4.21	0.44	2.97	6.94	6.49
LFL	10.27	2.8	1.99	8.05	8.39	8.18	8.25	5.44	4.87	11.13	0.15	15.86	0.4	5.4	0.43	4.25	6.8	6.69
RTL	8.88	5.92	1.7	7.74	7.2	6.02	7.6	5.59	4.89	8.55	0.08	24.85	0.44	5.14	0.47	4.7	7.35	6.88
LTL	9.18	5.31	1.77	7.07	7.4	6.05	7.87	6.4	4.98	6.65	0.09	26.92	0.42	3.89	0.49	3.92	6.9	4.58
RPL	10.3	3.63	1.5	6.52	7.34	7.01	7.13	5.73	4.13	8.92	0.16	16.05	0.39	5.26	0.43	5.83	6.26	9.68
LPL	10.18	4.45	1.51	8.53	7.3	8.17	7.48	6.3	4.29	9.71	0.19	15.93	0.38	5.26	0.42	5.69	6.27	9.5
ROL	10.9	4.94	1.24	8.65	7.67	4.56	7.66	10.31	4.67	6.44	0.08	28.12	0.39	5.76	0.51	3.61	6.19	6.61
LOL	10.93	5.71	1.32	6.97	7.93	4.24	7.69	6.71	4.68	11.87	0.1	28.13	0.41	5.56	0.48	5.08	5.9	5.59
Cbl	8.34	7.6	2.18	6.74	9.45	9.17	7.99	4.8	5.09	9.56	0.11	28.18	0.39	10.17	0.5	10.28	6.79	7.54

1. Metabolite concentration determined with reference to the tissue water and reported in institutional units (i.u.). 2. COV expressed in %. CSF = cerebrospinal fluid, GM = gray matter, WM = white matter, LW = linewidth. 3. The first letter R = right; the second letter F = frontal, P = parietal, O = occipital, T = temporal; the third letter L = lobe; Cbl = cerebellum. 4. Averaged from 5 repeated scans. 5. Averaged among 20 volunteers