S5 Table. Ceramide molecular species of the brain ganglioside classes characterized by HRMS with the LTQ-Orbitrap mass spectrometer. We were not able to characterize any molecular species in the minor classes of GQ1b and AcGQ1b. Major molecular species are indicated in bold. N.D.: Non-detected. N.I.: Non-identified.

	GM3	GM2	GD3	AcGD3	GD2	GD1a	GD1b	AcGD1b	GT3	AcGT3	GT1b	AcGT1b
32:1	N.I.	N.I.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
34:1	**d18:1/16:0**	d18:1/16:0	d16:1/18:0 **d18:1/16:0**	N.D.	N.I.	N.I.	N.D.	N.D.	N.D.	N.D.	**d18:1/16:0**	N.D.
36:2	d17:0/19:2 **d18:1/18:1**	**d18:1/18:1**	d17:0/19:2 d18:2/18:0 **d18:1/18:1**	N.D.	**d18:1/18:1**	**d18:1/18:1**	**d18:1/18:1**	**d20:1/16:1**	**d18:1/18:1**	N.D.	N.D.	N.I.
36:1	d17:0/19:1 **d18:1/18:0**	**d18:1/18:0**	**d18:1/18:0**	N.I.	**d18:1/18:0**	**d18:1/18:0**	**d18:1/18:0**	**d20:1/16:0**	**d18:1/18:0**	**d18:1/18:0**	**d18:1/18:0** **d20:1/16:0**	**d20:1/16:0**
38:2	**d20:1/18:1**	d18:1/20:1 **d20:1/18:1**	**d18:1/20:1** **d20:1/18:1**	N.I.	d18:1/20:1 **d20:1/18:1**	**d18:1/20:1** **d20:1/18:1**	d18:1/20:1 **d20:1/18:1**	N.D.	N.D.	**d18:1/20:1** **d20:1/18:1**	**d20:1/18:1**	N.D.
38:1	d18:1/20:0 **d20:1/18:0**	**d20:1/18:0**	d18:1/20:0 **d20:1/18:0**	**d18:1/20:0**	d18:1/20:0 **d20:1/18:0**	**d20:1/18:0**	d18:1/20:0 **d20:1/18:0**	d18:1/20:0	**d18:1/20:0**	**d18:1/20:0**	**d20:1/18:0**	N.I.
40:2	**d18:1/22:1**	N.D.	**d18:1/22:1**	N.I.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
40:1	**d18:1/22:0**	N.I.	**d18:1/22:0**	**d20:1/20:0**	N.I.	**d20:1/20:0**	**d20:1/20:0**	N.I.	N.D.	N.D.	N.I.	N.I.
41:1	**d18:1/23:0**	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
42:3	N.D.	N.D.	**d18:1/24:2**	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
42:2	**d18:1/24:1**	N.I.	**d18:1/24:1** **d20:1/22:1**	N.D.	N.I.	N.I.	N.I.	N.D.	N.D.	N.D.	N.D.	N.D.
42:1	**d18:1/24:0**	N.I.	**d18:1/24:0** **d20:1/22:0**	N.D.	N.D.	N.I.	N.I.	N.D.	N.D.	N.D.	N.I.	N.D.
43:2	N.I.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.