Supplemental data

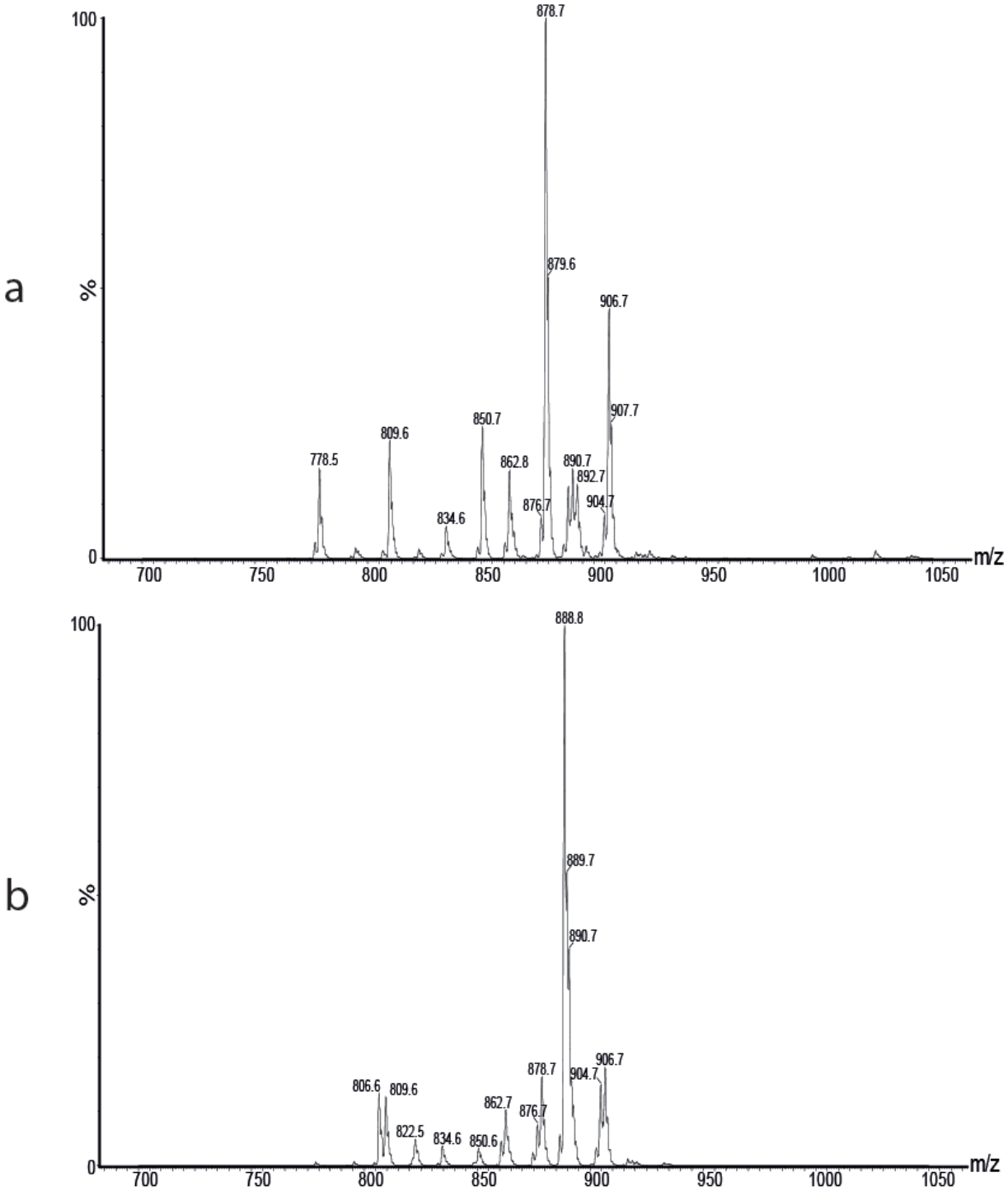

Figure Legends:

Figure 1. **Precursor ion scan of sulfatides in mouse kidney and brain homogenates.** The precursors of m/z 96.9 are shown for mouse kidney (a) and brain (b), note that 809.6 is the internal standard N-C18:0-D3-sulfatide.

Tables:

Table 1. Instrument parameters sulfatides

Capillary voltage	4.0 kV
Cone voltage	80 V
Source temperature	140 °C
Desolvation temperature	450 °C
Cone gas	50 L/h
Desolvation gas	950 L/h
Collision gas	0.30 mL/min
Collision voltage	70 V
Type	MRM
Ion mode	ES^-
Dwell time	0.05 s
Interchannel delay	0.005 s
Interscan delay	0.005 s

Table 2. Instrument parameters lysosulfatides.

Capillary voltage	4.0 kV
Cone voltage	80 V
Source temperature	140 ° C
Desolvation temperature	450 °C
Cone gas	50 L/h
Desolvation gas	950 L/h
Collision gas	0.30 mL/ min
Collision voltage	55 V
Type	MRM
Ion mode	ES^-
Dwell time	0.100 s
Interchannel delay	0.005 s
Interscan delay	0.005 s

Table 3. Transitions and retention times measured for sulfatides and

Mol. Species	Transition	RT (min.):
C16:0-sulfatide	m/z 778.7 > 96.9	3.72
C16:0-OH-sulfatide	m/z 794.7 > 96.9	3.66
C18:0-sulfatide	m/z 806.7 > 96.9	3.93
N-C18:0-D3-sulfatide (IS)	m/z 809.9 > 96.9	3.92
C18:0-OH-sulfatide	m/z 822.7 > 96.9	3.87
C20:0-sulfatide	m/z 834.7 > 96.9	4.26
C20:0-OH-sulfatide	m/z 850.7 > 96.9	4.20
C22:1-sulfatide	m/z 860.7 > 96.9	4.17
C22:0-sulfatide	m/z 862.7 > 96.9	4.63
C22:0-OH-sulfatide	m/z 878.7 > 96.9	4.56
C24:0-sulfatide	m/z 890.9 > 96.9	5.16
C24:1-sulfatide	m/z 888.7 > 96.9	4.64
C24:1-OH-sulfatide	m/z 904.7 > 96.9	4.55
C24:0-OH-sulfatide	m/z 906.7 > 96.9	5.04
C26:1-sulfatide	m/z 916.7 > 96.9	5.16
Lysosulfatide	m/z 540.4 > 96.9	3.29
N-acetylsulfatide (IS)	m/z 582.5 > 96.9	3.28
Lyso-ene-sulfatide	m/z 538.4 > 96.9	3.10

Table 4.

Mol. Species	Plasma†	Plasma‡
C16:0	5307	2925
C16:0-OH	9929	6193
C18:0	2611	1382
N-C18:0-D3 (IS)	22952	7035
C20:0	631	129
C20:0-OH	359	101
C22:0	1600	297
C22:0-OH	1166	294
C24:1	13695	2737
C24:0	2845	912
C24:1-OH	3005	566
C24:0-OH	1535	629
C26:1	960	284

Table4 Legend:

† extraction method developed by us, Liquid / Liquid extraction followed by solid phase extraction; ‡ Liquid / Liquid extraction only.