

**TABLE S1.** Characteristic fragment  $m/z$  and identification fragmentation ions of different lipid classes under positive ion mode of ESI.

Lipid class	Precursor ion pattern (ESI $^+$ )	Characteristic fragment $m/z$ (ESI $^+$ )	Identification fragmentation ion (ESI $^+$ )
TAG	[M + NH <sub>4</sub> ] $^+$	-	[M + NH <sub>4</sub> - R] $^+$
DAG	[M + NH <sub>4</sub> ] $^+$	-	[M + NH <sub>4</sub> - R] $^+$
PC	[M + H] $^+$	PRC 184.07	[PRC + H] $^+$
PA	[M + NH <sub>4</sub> ] $^+$	NL 115.00	[M + NH <sub>4</sub> - NL] $^+$
PE	[M + H] $^+$	NL 141.02	[M + H - NL] $^+$
PG	[M + NH <sub>4</sub> ] $^+$	NL 189.04	[M + NH <sub>4</sub> - NL] $^+$
PI	[M + NH <sub>4</sub> ] $^+$	NL 277.06	[M + NH <sub>4</sub> - NL] $^+$
PS	[M + H] $^+$	NL 185.01	[M + H - NL] $^+$
MGDG	[M + NH <sub>4</sub> ] $^+$	NL 179.08	[M + NH <sub>4</sub> - NL] $^+$
DGDG	[M + NH <sub>4</sub> ] $^+$	NL 341.13	[M + NH <sub>4</sub> - NL] $^+$
LysoPC	[M + H] $^+$	PRC 184.07	[M + H - RPC] $^+$
LysoPE	[M + H] $^+$	NL 141.02	[M + H - NL] $^+$
LysoPG	[M + H] $^+$	NL 172.02	[M + H - NL] $^+$

NL, neutral loss; R, any chain of multiple fatty acid chains; PRC, phosphorylated choline.