Table S1. Gradient elution program applied for UPLC-MS analysis.

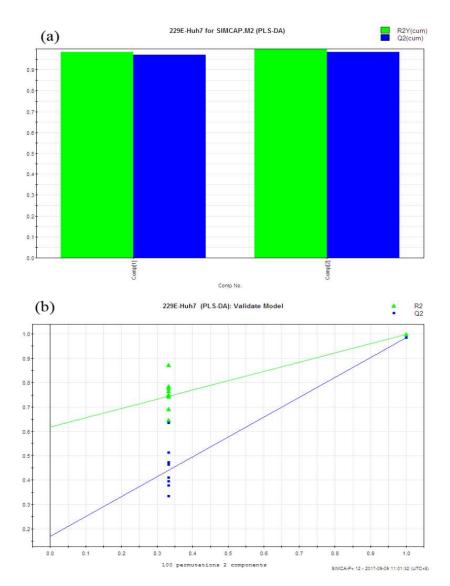| Time(min)	Flow rate (ml/min-1)	Mobile phase A(%)	Mobile phase B(%)	Curve
Initial	0.4	99.5%	0.5%	6
1	0.4	99.5%	0.5%	6
5	0.4	65%	35%	6
23	0.4	0.5%	99.5%	6
26.5	0.4	0.5%	99.5%	6
27.5	0.4	99.5%	0.5%	6
30	0.4	99.5%	0.5%	6

Figure S1. OPLS-DA model validation and permutation test. (a) The cross-validated parameters ($R^2X=0.83$, $R^2Y=0.98$, $Q^2=0.97$) are satisfactory for the OPLS-DA model. (b) The permutation test (100 times) indicates that the validated model is acceptable.
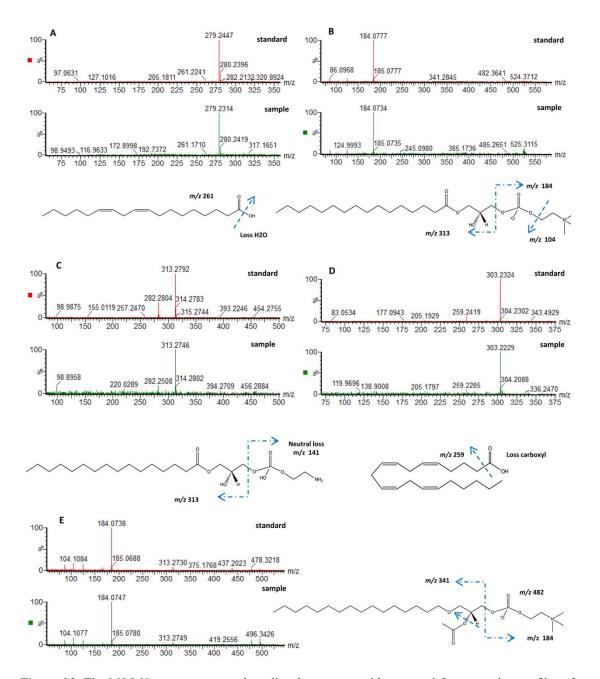
Figure S2. The MS/MS mass spectra and predicted structures with expected fragmentation profiles of the five representative lipids in cell lysate: (A) Linoleic acid; (B) LysoPC(16:0/0:0); (C) LysoPE(16:0/0:0); (D) Arachidonic acid; and (E) PAF C-16.