

Table S1: Composition of the mix of phospholipid standards used in the analysis performed using C18 RP-LC-MS and MS/MS.

Lipid standard	Formula	Fatty Acyl Chains	Theoretical <i>m/z</i>	Quantity μg
dMPC	C ₃₆ H ₇₃ NO ₈ P	14:0/14:0	678.5074	0.04
LPC	C ₂₇ H ₅₇ NO ₇ P	19:0	538.3873	0.04
dMPG	C ₃₄ H ₆₆ O ₁₀ P	14:0/14:0	665.4394	0.024
dPPI	C ₄₁ H ₇₈ O ₁₃ P	16:0/16:0	809.5180	0.08
dMPE	C ₃₃ H ₆₅ NO ₈ P	14:0/14:0	634.4448	0.04
dMPS	C ₃₄ H ₆₅ NO ₁₀ P	14:0/14:0	678.4346	0.08
dMPA	C ₃₁ H ₆₀ O ₈ P	14:0/14:0	591.4026	0.16
CL 56:0	C ₆₅ H ₁₂₅ O ₁₇ P ₂	14:0/14:0/14:0/14:0	1239.8392	0.16
SM 35:1;O2	C ₄₁ H ₈₂ N ₂ O ₈ P	18:1;O2/17:0	761.5809	0.04
Cer 35:1;O2	C ₃₅ H ₇₀ NO ₃	18:1;O2/17:0	552.5356	0.08

Table S2: Lipid molecular species identified in the lipid extracts (LE) of *Dunaliella salina* by C18 RP-LC-MS and MS/MS, in positive and negative ion modes. Information on lipid species, chemical formulas, fatty acyl compositions, theoretical and observed masses, and mass errors (ppm) is shown. C:N/C:N means the attribution of fatty acyl chains to the position *sn*-1/*sn*-2, while C:N_C:N means that the attribution of the *sn*-position of fatty acyl chains is not known.

Lipid Species (C:N)	Formula	Fatty Acyl Chains	Theoretical <i>m/z</i>	Observed <i>m/z</i>	Error (ppm)
[M+H] ⁺					
PC O-31:0	C ₃₉ H ₈₁ NO ₇ P	-	706.5751	706.5732	-2.6423
PC 31:1	C ₃₉ H ₇₇ NO ₈ P	-	718.5387	718.5389	0.3034
PC 32:4_1	C ₄₀ H ₇₃ NO ₈ P	-	726.5074	726.5052	-3.0034
PC 32:4_2	C ₄₀ H ₇₃ NO ₈ P	-	726.5074	726.5049	-3.4163
PC 32:4_3	C ₄₀ H ₇₃ NO ₈ P	-	726.5074	726.5057	-2.3152
PC O-34:3_1 / P-34:2_1	C ₄₂ H ₈₁ NO ₇ P	-	742.5751	742.5729	-2.9182
PC O-34:3_2 / P-34:2_2	C ₄₂ H ₈₁ NO ₇ P	-	742.5751	742.5726	-3.3222
PC 33:2_1	C ₄₁ H ₇₉ NO ₈ P	-	744.5543	744.5521	-2.9964
PC 33:2_2	C ₄₁ H ₇₉ NO ₈ P	-	744.5543	744.5517	-3.5337
PC O-34:2_1	C ₄₂ H ₈₃ NO ₇ P	-	744.5907	744.5882	-3.3804
PC O-34:2_2	C ₄₂ H ₈₃ NO ₇ P	-	744.5907	744.5899	-1.0972
PC 34:3	C ₄₂ H ₇₉ NO ₈ P	16:0_18:3	756.5543	756.5511	-4.2297
PC 34:2	C ₄₂ H ₈₁ NO ₈ P	16:0_18:2; 16:1_18:1	758.5700	758.5666	-4.4584
PC 34:1	C ₄₂ H ₈₃ NO ₈ P	16:0_18:1	760.5856	760.5825	-4.1179
PC O-36:4	C ₄₄ H ₈₃ NO ₇ P	-	768.5907	768.5907	0.0000
PC O-36:1_1	C ₄₄ H ₈₉ NO ₇ P	-	774.6377	774.6365	-1.5065
PC O-36:1_2	C ₄₄ H ₈₉ NO ₇ P	-	774.6377	774.6374	-0.3447
PC 36:6_1	C ₄₄ H ₇₇ NO ₈ P	-	778.5387	778.5366	-2.6742
PC 36:6_2	C ₄₄ H ₇₇ NO ₈ P	-	778.5387	778.5359	-3.5734
PC 36:6_3	C ₄₄ H ₇₇ NO ₈ P	-	778.5387	778.5352	-4.4725
PC 36:5_1	C ₄₄ H ₇₉ NO ₈ P	-	780.5543	780.5517	-3.3707

PC 36:5_2	C ₄₄ H ₇₉ NO ₈ P	-	780.5543	780.5507	-4.6518
PC 36:4_1	C ₄₄ H ₈₁ NO ₈ P	-	782.5700	782.5680	-2.5327
PC 36:4_2	C ₄₄ H ₈₁ NO ₈ P	-	782.5700	782.5670	-3.8105
PC 36:4_3	C ₄₄ H ₈₁ NO ₈ P	-	782.5700	782.5686	-1.7660
PC 36:3_1	C ₄₄ H ₈₃ NO ₈ P	-	784.5856	784.5835	-2.7174
PC 36:3_2	C ₄₄ H ₈₃ NO ₈ P	-	784.5856	784.5821	-4.5017
PC 36:2	C ₄₄ H ₈₅ NO ₈ P	18:1/18:1	786.6013	786.5990	-2.9011
PC 37:2_1	C ₄₅ H ₈₇ NO ₈ P	-	800.6169	800.6142	-3.4124
PC 37:2_2	C ₄₅ H ₈₇ NO ₈ P	-	800.6169	800.6130	-4.9112
PC 36:4;O2	C ₄₄ H ₈₁ NO ₁₀ P	-	814.5598	814.5571	-3.3294
PC 38:2_1	C ₄₆ H ₈₉ NO ₈ P	-	814.6326	814.6346	2.4772
PC 38:2_2	C ₄₆ H ₈₉ NO ₈ P	-	814.6326	814.6298	-3.4150
[M+H] ⁺					
LPC 16:1	C ₂₄ H ₄₉ NO ₇ P	-	494.3247	494.3242	-0.9447
LPC 16:0	C ₂₄ H ₅₁ NO ₇ P	-	496.3403	496.3399	-0.8381
LPC 18:3	C ₂₆ H ₄₉ NO ₇ P	-	518.3247	518.3240	-1.3505
LPC 18:2	C ₂₆ H ₅₁ NO ₇ P	-	520.3403	520.3395	-1.5375
[M-H] ⁻					
PG 32:1_1	C ₃₈ H ₇₂ O ₁₀ P	16:0_16:1; 14:0_18:1	719.4863	719.4869	0.8339
PG 32:1_2	C ₃₈ H ₇₂ O ₁₀ P	-	719.4863	719.4865	0.2780
PG 32:0	C ₃₈ H ₇₄ O ₁₀ P	16:0/16:0	721.5020	721.5019	-0.1386
PG 33:1	C ₃₉ H ₇₄ O ₁₀ P	16:0_17:1	733.5020	733.5026	0.8698
PG 34:4	C ₄₀ H ₇₀ O ₁₀ P	16:1_18:3	741.4707	741.4714	0.9441
PG 34:3_1	C ₄₀ H ₇₂ O ₁₀ P	16:0_18:3	743.4863	743.4862	-0.1345
PG 34:3_2	C ₄₀ H ₇₂ O ₁₀ P	16:1_18:2	743.4863	743.4868	0.6725
PG 34:2_1	C ₄₀ H ₇₄ O ₁₀ P	16:1_18:1	745.5020	745.5026	0.8048
PG 34:2_2	C ₄₀ H ₇₄ O ₁₀ P	16:0_18:2	745.5020	745.5028	1.0731
PG 34:1	C ₄₀ H ₇₆ O ₁₀ P	16:0_18:1	747.5176	747.5186	1.3378
PG 34:4;O_1	C ₄₀ H ₇₀ O ₁₁ P	16:1_18:3;O	757.4656	757.4659	0.4251
PG 34:4;O_2	C ₄₀ H ₇₀ O ₁₁ P	-	757.4656	757.4650	-0.7631
PG 34:4;O_3	C ₄₀ H ₇₀ O ₁₁ P	-	757.4656	757.4647	-1.1591
PG 35:2	C ₄₁ H ₇₆ O ₁₀ P	16:1_19:1; 17:1_18:1	759.5176	759.5183	0.9045
PG 35:1	C ₄₁ H ₇₈ O ₁₀ P	16:0_19:1	761.5333	761.5333	0.0486
PG 34:4;O2_1	C ₄₀ H ₇₀ O ₁₂ P	16:1_18:3;O2	773.4605	773.4611	0.7848
PG 34:4;O2_2	C ₄₀ H ₇₀ O ₁₂ P	-	773.4605	773.4600	-0.6374
PG 36:2	C ₄₂ H ₇₈ O ₁₀ P	18:1/18:1	773.5333	773.5340	0.9049
PG 34:3;O2	C ₄₀ H ₇₂ O ₁₂ P	16:1_18:2;O2	775.4761	775.4763	0.2025
PG 37:2	C ₄₃ H ₈₀ O ₁₀ P	18:1_19:1	787.5489	787.5494	0.6184
[M-H] ⁻					
PI 34:3	C ₄₃ H ₇₆ O ₁₃ P	16:0_18:3	831.5024	831.5031	0.8418
PI 34:2	C ₄₃ H ₇₈ O ₁₃ P	16:0_18:2	833.5180	833.5188	0.9598
PI 34:1	C ₄₃ H ₈₀ O ₁₃ P	16:0_18:1	835.5337	835.5346	1.0772
[M+NH ₄] ⁺					
MGDG 34:7	C ₄₃ H ₇₂ NO ₁₀	16:4_18:3	762.5156	762.5141	-1.9986
MGDG 34:6_1	C ₄₃ H ₇₄ NO ₁₀	16:3_18:3	764.5313	764.5294	-2.4499

MGDG 34:6_2	C ₄₃ H ₇₄ NO ₁₀	16:4_18:2	764.5313	764.5293	-2.5807
MGDG 34:5_1	C ₄₃ H ₇₆ NO ₁₀	16:2_18:3	766.5469	766.5452	-2.2490
MGDG 34:5_2	C ₄₃ H ₇₆ NO ₁₀	16:4_18:1	766.5469	766.5450	-2.5100
MGDG 34:5_3	C ₄₃ H ₇₆ NO ₁₀	-	766.5469	766.5489	2.5778
MGDG 34:4_1	C ₄₃ H ₇₈ NO ₁₀	16:2_18:2; 16:1_18:3	768.5620	768.5603	-2.2119
MGDG 34:4_2	C ₄₃ H ₇₈ NO ₁₀	-	768.5620	768.5591	-3.7733
MGDG 34:3_1	C ₄₃ H ₈₀ NO ₁₀	-	770.5782	770.5754	-3.6648
MGDG 34:3_2	C ₄₃ H ₈₀ NO ₁₀	16:1_18:2; 16:2_18:1	770.5782	770.5755	-3.5350
MGDG 34:2	C ₄₃ H ₈₂ NO ₁₀	16:1_18:1; 16:0_18:2	772.5933	772.5921	-1.5532
MGDG 34:1_1	C ₄₃ H ₈₄ NO ₁₀	-	774.6090	774.6074	-2.0656
MGDG 34:1_2	C ₄₃ H ₈₄ NO ₁₀	16:0_18:1	774.6090	774.6077	-1.6783
[M+NH ₄] ⁺					
MGMG 16:0	C ₂₅ H ₅₂ NO ₉	16:0	510.3642	510.3625	-3.3310
MGMG 18:3	C ₂₇ H ₅₀ NO ₉	18:3	532.3486	532.3470	-2.9285
[M+NH ₄] ⁺					
DGDG 30:0	C ₄₅ H ₈₈ O ₁₅ N	14:0_16:0	882.6154	882.6118	-4.0788
DGDG 32:3	C ₄₇ H ₈₆ O ₁₅ N	14:0_18:3	904.5997	904.5973	-2.6531
DGDG 32:2	C ₄₇ H ₈₈ O ₁₅ N	14:0_18:2	906.6154	906.6126	-3.0884
DGDG 32:1	C ₄₇ H ₉₀ O ₁₅ N	14:0_18:1	908.6310	908.6278	-3.5218
DGDG 32:0	C ₄₇ H ₉₂ O ₁₅ N	16:0/16:0	910.6467	910.6432	-3.8434
DGDG 34:7	C ₄₉ H ₈₂ O ₁₅ N	16:4_18:3	924.5684	924.5656	-3.0284
DGDG 34:6	C ₄₉ H ₈₄ O ₁₅ N	16:3_18:3	926.5841	926.5812	-3.1298
DGDG 34:5	C ₄₉ H ₈₆ O ₁₅ N	16:2_18:3	928.5997	928.5967	-3.2307
DGDG 34:4_1	C ₄₉ H ₈₈ O ₁₅ N	-	930.6154	930.6122	-3.4386
DGDG 34:4_2	C ₄₉ H ₈₈ O ₁₅ N	16:1_18:3	930.6154	930.6128	-2.7939
DGDG 34:3	C ₄₉ H ₉₀ O ₁₅ N	16:1_18:2; 16:2_18:1	932.6310	932.6284	-2.7878
DGDG 34:2	C ₄₉ H ₉₂ O ₁₅ N	16:1_18:1; 16:0_18:2	934.6467	934.6427	-4.2797
DGDG 34:1	C ₄₉ H ₉₄ O ₁₅ N	16:0_18:1	936.6623	936.6594	-3.0961
DGDG 34:0	C ₄₉ H ₉₆ O ₁₅ N	16:0_18:0	938.6780	938.6759	-2.2372
DGDG 34:4;O	C ₄₉ H ₈₈ O ₁₆ N	16:0_18:4;O	946.6103	946.6074	-3.0784
DGDG 34:3;O_1	C ₄₉ H ₉₀ O ₁₆ N	-	948.6260	948.6225	-3.6516
DGDG 34:3;O_2	C ₄₉ H ₉₀ O ₁₆ N	16:0_18:3;O	948.6260	948.6236	-2.4920
DGDG 34:2;O_1	C ₄₉ H ₉₂ O ₁₆ N	-	950.6416	950.6381	-3.6965
DGDG 34:2;O_2	C ₄₉ H ₉₂ O ₁₆ N	16:0_18:2;O	950.6416	950.6404	-1.2770
DGDG 34:1;O_1	C ₄₉ H ₉₄ O ₁₆ N	-	952.6573	952.6563	-1.0109
DGDG 34:1;O_2	C ₄₉ H ₉₄ O ₁₆ N	16:0_18:1;O	952.6573	952.6540	-3.4252
DGDG 36:6	C ₅₁ H ₈₈ O ₁₅ N	18:3/18:3; 18:2_18:4	954.6154	954.6125	-3.0379
DGDG 36:5	C ₅₁ H ₉₀ O ₁₅ N	18:2_18:3	956.6310	956.6284	-2.7179
DGDG 36:4	C ₅₁ H ₉₂ O ₁₅ N	18:1_18:3; 18:2/18:2	958.6467	958.6440	-2.8165
DGDG 34:5;O2	C ₄₉ H ₈₆ O ₁₇ N	16:0_18:5;2O; 16:2_18:3;2O	960.5896	960.5860	-3.7258
DGDG 36:3_1	C ₅₁ H ₉₄ O ₁₅ N	-	960.6623	960.6580	-4.4761

DGDG 36:3_2	C ₅₁ H ₉₄ O ₁₅ N	18:1_18:2	960.6623	960.6625	0.2082
DGDG 34:4;O2_1	C ₄₉ H ₈₈ O ₁₇ N	-	962.6052	962.6010	-4.3933
DGDG 34:4;O2_2	C ₄₉ H ₈₈ O ₁₇ N	-	962.6052	962.6012	-4.1855
DGDG 36:2_1	C ₅₁ H ₉₆ O ₁₅ N	-	962.6780	962.6758	-2.2853
DGDG36:2_2	C ₅₁ H ₉₆ O ₁₅ N	18:1/18:1	962.6780	962.6757	-2.3892
DGDG 34:3;O2	C ₄₉ H ₉₀ O ₁₇ N	16:0_18:3;O2	964.6209	964.6177	-3.2956
DGDG 34:4;O3	C ₄₉ H ₈₈ O ₁₈ N	16:0_18:4;O3	978.6001	978.5961	-4.1324
[M+NH ₄] ⁺					
DGMG 16:0	C ₃₁ H ₆₂ NO ₁₄	16:0	672.4170	672.4171	0.1487
DGMG 18:3	C ₃₃ H ₆₀ NO ₁₄	18:3	694.4014	694.4005	-1.2730
[M-H] ⁻					
SQDG 30:0_1	C ₃₉ H ₇₃ O ₁₂ S	-	765.4823	765.4789	-4.4116
SQDG 30:0_2	C ₃₉ H ₇₃ O ₁₂ S	-	765.4823	765.4791	-4.1503
SQDG 30:0_3	C ₃₉ H ₇₃ O ₁₂ S	-	765.4823	765.4827	0.5526
SQDG 32:0	C ₄₁ H ₇₇ O ₁₂ S	-	793.5136	793.5133	-0.3478
SQDG 34:3	C ₄₃ H ₇₅ O ₁₂ S	-	815.4979	815.4981	0.2121
SQDG 34:2	C ₄₃ H ₇₇ O ₁₂ S	-	817.5136	817.5141	0.6410
SQDG 34:1	C ₄₃ H ₇₉ O ₁₂ S	-	819.5292	819.5293	0.0891
SQDG 34:0	C ₄₃ H ₈₁ O ₁₂ S	-	821.5449	821.5462	1.6104
SQDG 34:4;O	C ₄₃ H ₇₃ O ₁₃ S	-	829.4772	829.4775	0.3713
SQDG 34:3;O_1	C ₄₃ H ₇₅ O ₁₃ S	-	831.4928	831.4937	1.0319
SQDG 34:3;O_2	C ₄₃ H ₇₅ O ₁₃ S	-	831.4928	831.4935	0.7913
SQDG 35:1	C ₄₄ H ₈₁ O ₁₂ S	-	833.5449	833.5459	1.2273
SQDG 36:2	C ₄₅ H ₈₁ O ₁₂ S	-	845.5449	845.5444	-0.5641
SQDG 36:1	C ₄₅ H ₈₃ O ₁₂ S	-	847.5605	847.5612	0.7940
SQDG 34:3;O3	C ₄₃ H ₇₅ O ₁₅ S	-	863.4827	863.4837	1.1905
SQDG 34:3;O4	C ₄₃ H ₇₅ O ₁₆ S	-	879.4776	879.4783	0.8107
SQMG 16:0	C ₂₅ H ₄₇ O ₁₁ S	-	555.2839	555.2850	1.9594
[M+H] ⁺					
DGTS 32:1	C ₄₂ H ₈₀ O ₇ N	14:0_18:1; 16:0_16:1	710.5935	710.5913	-3.0960
DGTS 32:0	C ₄₂ H ₈₂ O ₇ N	16:0/16:0	712.6091	712.6075	-2.2453
DGTS 33:3_1	C ₄₃ H ₇₈ O ₇ N	15:0_18:3; 16:0_17:3	720.5778	720.5752	-3.6082
DGTS 33:3_2	C ₄₃ H ₇₈ O ₇ N	-	720.5778	720.5749	-4.0245
DGTS 33:2	C ₄₃ H ₈₀ O ₇ N	15:0_18:2; 16:0_17:2; 16:1_17:1	722.5935	722.5918	-2.3236
DGTS 34:6_1	C ₄₄ H ₇₄ O ₇ N	16:4_18:2	728.5465	728.5448	-2.3334
DGTS 34:6_2	C ₄₄ H ₇₄ O ₇ N	-	728.5465	728.5433	-4.3923
DGTS 34:5_1	C ₄₄ H ₇₆ O ₇ N	16:2_18:3; 16:3_18:2; 16:4_18:1	730.5622	730.5603	-2.6007
DGTS 34:5_2	C ₄₄ H ₇₆ O ₇ N	-	730.5622	730.5594	-3.8327
DGTS 34:4_1	C ₄₄ H ₇₈ O ₇ N	16:1_18:3; 16:2_18:2; 16:0_18:4	732.5778	732.5750	-3.8221
DGTS 34:4_2	C ₄₄ H ₇₈ O ₇ N	-	732.5778	732.5740	-5.1872

DGTS 34:3	C ₄₄ H ₈₀ O ₇ N	16:1_18:2; 16:0_18:3; 16:2_18:1	734.5935	734.5912	-3.1310
DGTS 34:2	C ₄₄ H ₈₂ O ₇ N	16:0_18:2	736.6091	736.6070	-2.8509
DGTS 34:1	C ₄₄ H ₈₄ O ₇ N	16:0_18:1	738.6248	738.6220	-3.7908
DGTS 34:4;O	C ₄₄ H ₇₈ O ₈ N	16:0_18:4;O	748.5727	748.5701	-3.5321
DGTS 35:3_1	C ₄₅ H ₈₂ O ₇ N	-	748.6091	748.6065	-3.5105
DGTS 35:3_2	C ₄₅ H ₈₂ O ₇ N	17:0_18:3	748.6091	748.6068	-3.1098
DGTS 36:6_1	C ₄₆ H ₇₈ O ₇ N	18:3/18:3	756.5778	756.5754	-3.1722
DGTS 36:6_2	C ₄₆ H ₇₈ O ₇ N	-	756.5778	756.5742	-4.7583
DGTS 36:5_1	C ₄₆ H ₈₀ O ₇ N	18:2_18:3	758.5935	758.5908	-3.5592
DGTS 36:5_2	C ₄₆ H ₈₀ O ₇ N	-	758.5935	758.5900	-4.6138
DGTS 36:4_1	C ₄₆ H ₈₂ O ₇ N	18:2/18:2; 18:1_18:3	760.6091	760.6062	-3.8127
DGTS 36:4_2	C ₄₆ H ₈₂ O ₇ N	18:1_18:3	760.6091	760.6059	-4.2072
DGTS 34:5;O2	C ₄₄ H ₇₆ O ₉ N	-	762.5520	762.5503	-2.2412
DGTS 36:3_1	C ₄₆ H ₈₄ O ₇ N	-	762.6248	762.6224	-3.1470
DGTS 36:3_2	C ₄₆ H ₈₄ O ₇ N	18:1_18:2	762.6248	762.6216	-4.1960
DGTS 34:4;O2	C ₄₄ H ₇₈ O ₉ N	16:0_18:4;O2	764.5677	764.5653	-3.0854
DGTS 36:2	C ₄₆ H ₈₆ O ₇ N	18:1/18:1	764.6404	764.6383	-2.7464
DGTS 34:3;O2	C ₄₄ H ₈₀ O ₉ N	16:0_18:3;O2	766.5833	766.5811	-2.8816
DGTS 36:1	C ₄₆ H ₈₈ O ₇ N	18:0_18:1	766.6561	766.6535	-3.3914
DGTS 36:6;O_1	C ₄₆ H ₇₈ O ₈ N	18:2;O_18:4; 18:3_18:3;O	772.5727	772.5708	-2.5163
DGTS 36:6;O_2	C ₄₆ H ₇₈ O ₈ N	-	772.5727	772.5695	-4.1990
DGTS 36:5;O_1	C ₄₆ H ₈₀ O ₈ N	18:2;O_18:3	774.5884	774.5869	-1.9288
DGTS 36:5;O_2	C ₄₆ H ₈₀ O ₈ N	-	774.5884	774.5851	-4.2526
DGTS 37:4	C ₄₇ H ₈₄ O ₇ N	18:3_19:1	774.6248	774.6223	-3.2003
DGTS 36:4;O_1	C ₄₆ H ₈₂ O ₈ N	18:1;O_18:3; 18:2_18:2;O	776.6040	776.6011	-3.7896
DGTS 36:4;O_2	C ₄₆ H ₈₂ O ₈ N	18:1_18:3;O	776.6040	776.6010	-3.9183
DGTS 37:3_1	C ₄₇ H ₈₆ O ₇ N	18:2_19:1	776.6404	776.6374	-3.9001
DGTS 37:3_2	C ₄₇ H ₈₆ O ₇ N	-	776.6404	776.6438	4.3405
DGTS 36:3;O_1	C ₄₆ H ₈₄ O ₈ N	18:0;O_18:3; 18:1_18:2;O	778.6197	778.6161	-4.6159
DGTS 36:3;O_2	C ₄₆ H ₈₄ O ₈ N	16:0_20:3;O	778.6197	778.6170	-3.4600
DGTS 37:2	C ₄₇ H ₈₈ O ₇ N	18:1_19:1	778.6561	778.6532	-3.6974
[M+H] ⁺					
MGTS 16:1	C ₂₆ H ₅₀ O ₆ N	16:1	472.3638	472.3624	-2.9935
MGTS 16:0	C ₂₆ H ₅₂ O ₆ N	16:0	474.3795	474.3786	-1.8972
MGTS 18:3	C ₂₈ H ₅₀ O ₆ N	18:3	496.3638	496.3629	-1.8414
MGTS 18:2	C ₂₈ H ₅₂ O ₆ N	18:2	498.3795	498.3782	-2.5362
MGTS 18:1	C ₂₈ H ₅₄ O ₆ N	18:1	500.3951	500.3937	-2.8258
MGTS 18:3;O2	C ₂₈ H ₅₀ O ₈ N	18:3;O2	528.3536	528.3545	1.6201
MGTS 18:2;O2	C ₂₈ H ₅₂ O ₈ N	18:2;O2	530.3693	530.3701	1.5197
MGTS 18:3;O3	C ₂₈ H ₅₀ O ₉ N	18:3;O3	544.3486	544.3491	0.9938
MGTS 18:2;O3	C ₂₈ H ₅₂ O ₉ N	18:2;O3	546.3642	546.3650	1.4478
[M+H] ⁺					

Cer 34:2;O_1	C ₃₄ H ₆₆ NO ₂	-	520.5094	520.5080	-2.6013
Cer 34:2;O_2	C ₃₄ H ₆₆ NO ₂	18:2;O/16:0; 17:1;O/17:1	520.5094	520.5086	-1.4486
Cer 33:0;O2_1	C ₃₃ H ₆₈ NO ₃	-	526.5199	526.5184	-2.8850
Cer 33:0;O2_2	C ₃₃ H ₆₈ NO ₃	17:0;O2/16:0	526.5199	526.5189	-1.9353
Cer 34:3;O2_1	C ₃₄ H ₆₄ NO ₃	-	534.4886	534.4877	-1.7194
Cer 34:3;O2_2	C ₃₄ H ₆₄ NO ₃	19:1;O2/15:2; 19:2;O2/15:1	534.4886	534.4879	-1.3452
Cer 35:2;O	C ₃₅ H ₆₈ NO ₂	18:2;O/17:0; 17:1;O/18:1	534.5250	534.5242	-1.5041
Cer 34:1;O2_1	C ₃₄ H ₆₈ NO ₃	18:1;O2/16:0	538.5199	538.5193	-1.1494
Cer 34:1;O2_2	C ₃₄ H ₆₈ NO ₃	-	538.5199	538.5190	-1.7065
Cer 34:0;O2_1	C ₃₄ H ₇₀ NO ₃	18:0;O2/16:0	540.5356	540.5342	-2.5327
Cer 34:0;O2_2	C ₃₄ H ₇₀ NO ₃	-	540.5356	540.5349	-1.2377
Cer 34:0;O2_3	C ₃₄ H ₇₀ NO ₃	-	540.5356	540.5343	-2.3477
Cer 34:0;O2_4	C ₃₄ H ₇₀ NO ₃	-	540.5356	540.5336	-3.6427
Cer 35:0;O2_1	C ₃₅ H ₇₂ NO ₃	19:0;O2/16:0; 17:0;O2/18:0	554.5512	554.5506	-1.1162
Cer 35:0;O2_2	C ₃₅ H ₇₂ NO ₃	18:0;O2/17:0	554.5512	554.5507	-0.9359
Cer 35:0;O2_3	C ₃₅ H ₇₂ NO ₃	-	554.5512	554.5501	-2.0178
Cer 37:1;O2	C ₃₇ H ₇₄ NO ₃	18:1;O2/19:0; 17:0;O2/20:1	580.5669	580.5654	-2.5303
Cer 37:1;O3_1	C ₃₇ H ₇₄ NO ₄	-	596.5618	596.5615	-0.4761
Cer 37:1;O3_2	C ₃₇ H ₇₄ NO ₄	18:0;O3/19:1	596.5618	596.5615	-0.4761
Cer 37:1;O3_3	C ₃₇ H ₇₄ NO ₄	-	596.5618	596.5605	-2.1523
Cer 48:0;O3	C ₄₈ H ₉₈ NO ₄	22:0;O3/26:0	752.7496	752.7464	-4.2298
PI-Cer 34:1;O2	C ₄₀ H ₇₇ NO ₁₁ P	20:1;O2/14:0	778.5234	778.5241	0.8645
[M+NH₄]⁺					
TG 40:0	C ₄₃ H ₈₆ O ₆ N	8:0_16:0_16:0; 10:0_14:0_16:0	712.6455	712.6431	-3.3874
TG 44:0	C ₄₇ H ₉₄ O ₆ N	13:0_15:0_16:0; 12:0_16:0_16:0; 13:0_14:0_17:0	768.7081	768.7053	-3.6607
TG 45:1_1	C ₄₈ H ₉₄ O ₆ N	-	780.7081	780.7050	-3.9887
TG 45:1_2	C ₄₈ H ₉₄ O ₆ N	-	780.7081	780.7056	-3.2202
TG 45:1_3	C ₄₈ H ₉₄ O ₆ N	13:1_16:0_16:0; 14:0_15:0_16:1; 14:0_15:1_16:0; 13:1_14:0_18:0	780.7081	780.7052	-3.7325
TG 45:0_1	C ₄₈ H ₉₆ O ₆ N	-	782.7238	782.7210	-3.5313
TG 45:0_2	C ₄₈ H ₉₆ O ₆ N	13:0_16:0_16:0; 14:0_15:0_16:0; 14:0_14:0_17:0	782.7238	782.7206	-4.0423
TG 46:4_1	C ₄₉ H ₉₀ O ₆ N	-	788.6768	788.6758	-1.2857
TG 46:4_2	C ₄₉ H ₉₀ O ₆ N	14:0_16:0_16:4	788.6768	788.6750	-2.3001

TG 46:1	C ₄₉ H ₉₆ O ₆ N	12:0_16:0_18:1; 14:0_16:0_16:1; 14:1_16:0_16:0	794.7238	794.7207	-3.8554
TG 46:0	C ₄₉ H ₉₈ O ₆ N	14:0_16:0_16:0	796.7394	796.7356	-4.7870
TG 47:2_1	C ₅₀ H ₉₆ O ₆ N	-	806.7238	806.7208	-3.6741
TG 47:2_2	C ₅₀ H ₉₆ O ₆ N	13:0_16:0_18:2; 13:0_16:1_18:1; 14:0_15:0_18:2; 14:0_15:1_18:1; 14:0_16:1_17:1; 15:0_15:1_17:1; 15:0_16:1_16:1	806.7238	806.7205	-4.0460
TG 47:1_1	C ₅₀ H ₉₈ O ₆ N		808.7394	808.7373	-2.6139
TG 47:1_2	C ₅₀ H ₉₈ O ₆ N	15:0_16:0_16:1;	808.7394	808.7360	-4.2214
TG 47:0_1	C ₅₀ H ₁₀₀ O ₆ N	-	810.7551	810.7519	-3.9025
TG 47:0_2	C ₅₀ H ₁₀₀ O ₆ N	14:0_15:0_18:0; 14:0_16:0_17:0; 15:0_15:0_17:0; 15:0_16:0_16:0	810.7551	810.7517	-4.1492
TG 48:5	C ₅₁ H ₉₂ O ₆ N	14:0_16:2_18:3; 14:0_16:3_18:2	814.6925	814.6902	-2.7790
TG 48:4	C ₅₁ H ₉₄ O ₆ N	12:0_18:1_18:3; 12:0_18:2_18:2; 14:0_16:1_18:3; 14:0_16:2_18:2; 16:1_16:1_16:2	816.7081	816.7051	-3.6904
TG 48:3	C ₅₁ H ₉₆ O ₆ N	14:0_16:0_18:3; 14:0_16:1_18:2; 14:0_16:2_18:1; 14:1_16:0_18:2; 14:1_16:1_18:1; 14:2_16:0_18:1; 16:0_16:0_16:3; 16:0_16:1_16:2; 16:1_16:1_16:1	818.7238	818.7205	-3.9867
TG 48:2	C ₅₁ H ₉₈ O ₆ N	14:0_16:0_18:2; 14:0_16:1_18:1; 14:1_16:0_18:1; 14:1_16:1_18:0; 14:2_16:0_18:0; 16:0_16:0_16:2; 16:0_16:1_16:1	820.7394	820.7360	-4.1597
TG 48:0	C ₅₁ H ₁₀₂ O ₆ N	14:0_17:0_17:0; 15:0_16:0_17:0; 15:0_15:0_18:0; 14:0_16:0_18:0; 16:0_16:0_16:0	824.7707	824.7682	-3.0481

TG 49:3	C ₅₂ H ₉₈ O ₆ N	15:0_16:0_18:3; 15:1_16:0_18:2; 15:1_16:1_18:1; 15:1_17:1_17:1	832.7394	832.7356	-4.5801
TG 49:2_1	C ₅₂ H ₁₀₀ O ₆ N	-	834.7551	834.7525	-3.0716
TG 49:2_2	C ₅₂ H ₁₀₀ O ₆ N	13:0_18:1_18:2; 14:0_17:0_18:2; 14:0_17:1_18:1; 15:0_16:0_18:2; 15:0_16:1_18:1; 15:1_16:0_18:1; 16:0_16:1_17:1; 16:1_16:1_17:0	834.7551	834.7517	-4.0299
TG 49:1	C ₅₂ H ₁₀₂ O ₆ N	14:0_16:0_19:1; 14:0_17:0_18:1; 14:0_17:1_18:0; 15:0_16:0_18:1; 15:0_16:1_18:0; 15:0_17:0_17:1; 16:0_16:0_17:1; 16:0_16:1_17:0	836.7707	836.7672	-4.1995
TG 49:0_1	C ₅₂ H ₁₀₄ O ₆ N	-	838.7864	838.7826	-4.4874
TG 49:0_2	C ₅₂ H ₁₀₄ O ₆ N	14:0_16:0_19:0; 14:0_17:0_18:0; 15:0_16:0_18:0; 15:0_17:0_17:0; 16:0_16:0_17:0	838.7864	838.7827	-4.3682
TG 50:6	C ₅₃ H ₉₄ O ₆ N	16:0_16:4_18:2	840.7081	840.7052	-3.4661
TG 50:5	C ₅₃ H ₉₆ O ₆ N	14:0_18:2_18:3; 16:1_16:1_18:3; 16:1_16:2_18:2	842.7238	842.7206	-3.7545
TG 50:4	C ₅₃ H ₉₈ O ₆ N	14:2_18:1_18:1; 16:0_16:1_18:3; 16:0_16:2_18:2; 16:0_16:3_18:1	844.7394	844.7361	-3.9231
TG 50:3	C ₅₃ H ₁₀₀ O ₆ N	16:0_16:0_18:3	846.7551	846.7521	-3.5004
TG 50:2	C ₅₃ H ₁₀₂ O ₆ N	16:0_16:0_18:2	848.7707	848.7673	-4.0223
TG 50:1	C ₅₃ H ₁₀₄ O ₆ N	16:0_16:0_18:1	850.7864	850.7838	-3.0137
TG 50:0	C ₅₃ H ₁₀₆ O ₆ N	16:0_16:0_18:0	852.8020	852.7979	-4.8241
TG 51:3_1	C ₅₄ H ₁₀₂ O ₆ N	-	860.7707	860.7767	6.9542
TG 51:3_2	C ₅₄ H ₁₀₂ O ₆ N	16:0_17:0_18:3; 16:0_17:1_18:2; 16:1_17:1_18:1; 16:1_16:1_19:1	860.7707	860.7767	6.9542
TG 51:1	C ₅₄ H ₁₀₆ O ₆ N	15:0_17:0_19:1; 16:0_17:0_18:1	864.8020	864.7980	-4.6415
TG 51:0_1	C ₅₄ H ₁₀₈ O ₆ N	-	866.8177	866.8133	-5.0345

TG 51:0_2	C ₅₄ H ₁₀₈ O ₆ N	15:0_16:0_20:0; 15:0_17:0_19:0; 15:0_18:0_18:0; 16:0_16:0_19:0; 17:0_17:0_17:0	866.8177	866.8142	-3.9962
TG 52:6	C ₅₅ H ₉₈ O ₆ N	16:1_18:2_18:3; 16:2_18:1_18:3	868.7394	868.7363	-3.5845
TG 52:5	C ₅₅ H ₁₀₀ O ₆ N	16:1_18:1_18:3; 16:2_18:1_18:2	870.7551	870.7515	-4.0930
TG 52:4	C ₅₅ H ₁₀₂ O ₆ N	16:1_18:1_18:2; 16:2_18:1_18:1	872.7707	872.7669	-4.3700
TG 52:3	C ₅₅ H ₁₀₄ O ₆ N	16:0_18:0_18:3; 16:0_18:1_18:2; 16:1_18:0_18:2; 16:1_18:1_18:1	874.7864	874.7825	-4.4171
TG 52:2	C ₅₅ H ₁₀₆ O ₆ N	16:0_18:1_18:1; 14:2_16:0_22:0; 16:0_17:1_19:1; 16:0_18:0_18:2; 16:1_18:0_18:1	876.8020	876.7980	-4.5780
TG 52:0	C ₅₅ H ₁₁₀ O ₆ N	14:0_16:0_22:0; 14:0_18:0_20:0; 16:0_16:0_20:0; 16:0_18:0_18:0	880.8333	880.8296	-4.2165
TG 53:4	C ₅₆ H ₁₀₄ O ₆ N	16:0_18:3_19:1; 17:0_18:1_18:3; 17:0_18:2_18:2; 17:1_18:0_18:3; 17:2_18:0_18:2	886.7864	886.7829	-3.9062
TG 53:3	C ₅₆ H ₁₀₆ O ₆ N	16:1_17:1_20:1; 16:0_18:1_19:2; 16:0_18:2_19:1; 16:1_18:0_19:2; 16:1_18:1_19:1; 17:0_18:1_18:2; 17:1_18:0_18:2; 17:1_18:1_18:1	888.8020	888.7982	-4.2912
TG 53:1_1	C ₅₆ H ₁₁₀ O ₆ N	-	892.8333	892.8289	-4.9438
TG 53:1_2	C ₅₆ H ₁₁₀ O ₆ N	15:0_18:1_20:0; 15:0_19:0_19:1; 16:0_18:0_19:1; 16:0_18:1_19:0; 17:0_18:0_18:1	892.8333	892.8302	-3.4878
TG 53:0_1	C ₅₆ H ₁₁₂ O ₆ N	-	894.8490	894.8469	-2.3065

TG 53:0_2	C ₅₆ H ₁₁₂ O ₆ N	14:0_15:0_24:0; 14:0_17:0_22:0; 14:0_18:0_21:0; 16:0_15:0_22:0; 16:0_16:0_21:0; 16:0_17:0_20:0; 17:0_17:0_18:0	894.8490	894.8467	-2.5300
TG 54:6	C ₅₇ H ₁₀₂ O ₆ N	16:3_18:3_20:0; 18:0_18:2_18:4; 18:0_18:3_18:3; 18:1_18:2_18:3; 18:2_18:2_18:2	896.7707	896.7668	-4.3645
TG 54:5	C ₅₇ H ₁₀₄ O ₆ N	16:4_18:1_20:0; 18:1_18:2_18:2	898.7864	898.7821	-4.7442
TG 54:4	C ₅₇ H ₁₀₆ O ₆ N	18:1_18:1_18:2	900.8020	900.7978	-4.6781
TG 54:3	C ₅₇ H ₁₀₈ O ₆ N	16:0_18:3_20:0; 16:0_18:2_20:1; 16:2_18:0_20:1; 16:2_18:1_20:0; 18:0_18:0_18:3; 18:0_18:1_18:2; 18:1_18:1_18:1	902.8177	902.8135	-4.6122
TG 54:1	C ₅₇ H ₁₁₂ O ₆ N	14:0_18:1_22:0; 14:0_20:0_20:1; 16:0_18:0_20:0; 16:0_18:1_20:0; 18:0_18:0_18:1	906.8490	906.8449	-4.4815
TG 55:4	C ₅₈ H ₁₀₈ O ₆ N	18:1_18:1_19:2; 18:1_18:2_19:1	914.8177	914.8132	-4.8797
TG 55:3_1	C ₅₈ H ₁₁₀ O ₆ N	-	916.8333	916.8288	-4.9235
TG 55:3_2	C ₅₈ H ₁₁₀ O ₆ N	18:1_18:1_19:1	916.8333	916.8293	-4.3781
TG 55:2_1	C ₅₈ H ₁₁₂ O ₆ N	-	918.8490	918.8446	-4.7494
TG 55:2_2	C ₅₈ H ₁₁₂ O ₆ N	16:0_18:1_21:1; 16:0_18:2_21:0; 16:1_18:1_21:0; 16:0_19:1_20:1; 16:1_19:0_20:1; 16:1_19:1_20:0; 17:1_18:0_20:1; 17:1_18:1_20:0; 17:1_19:0_19:1	918.8490	918.8463	-2.8993
TG 55:0_1	C ₅₈ H ₁₁₆ O ₆ N	-	922.8803	922.8762	-4.4036
TG 55:0_2	C ₅₈ H ₁₁₆ O ₆ N	14:0_16:0_25:0; 15:0_16:0_24:0; 16:0_16:0_23:0	922.8803	922.8769	-3.6451
TG 56:6_1	C ₅₉ H ₁₀₆ O ₆ N	-	924.8020	924.7979	-4.4485
TG 56:6_2	C ₅₉ H ₁₀₆ O ₆ N	20:0_18:3_18:3	924.8020	924.7978	-4.5567
TG 56:6_3	C ₅₉ H ₁₀₆ O ₆ N	-	924.8020	924.8029	0.9580
TG 56:5_1	C ₅₉ H ₁₀₈ O ₆ N	-	926.8177	926.8148	-3.0901

TG 56:5_2	C ₅₉ H ₁₀₈ O ₆ N	16:4_18:1_22:0	926.8177	926.8133	-4.7086
TG 56:5_3	C ₅₉ H ₁₀₈ O ₆ N	-	926.8177	926.8189	1.3336
TG 56:4_1	C ₅₉ H ₁₁₀ O ₆ N	-	928.8333	928.8301	-3.4603
TG 56:4_2	C ₅₉ H ₁₁₀ O ₆ N	18:1_18:3_20:0	928.8333	928.8291	-4.5369
TG 56:1	C ₅₉ H ₁₁₆ O ₆ N	16:0_22:0_18:1	934.8803	934.8769	-3.5983
TG 57:4_1	C ₆₀ H ₁₁₂ O ₆ N	-	942.8490	942.8446	-4.6285
TG 57:4_2	C ₆₀ H ₁₁₂ O ₆ N	-	942.8490	942.8449	-4.3103
TG 57:4_3	C ₆₀ H ₁₁₂ O ₆ N	18:1_18:3_21:0	942.8490	942.8459	-3.2497
TG 57:2_1	C ₆₀ H ₁₁₆ O ₆ N	-	946.8803	946.8778	-2.6022
TG 57:2_2	C ₆₀ H ₁₁₆ O ₆ N	16:1_19:1_22:0; 17:1_18:1_22:0; 17:1_19:1_21:0; 18:1_18:1_21:0; 18:1_19:1_20:0	946.8803	946.8774	-3.0247
TG 57:0_1	C ₆₀ H ₁₂₀ O ₆ N	-	950.9116	950.9080	-3.7480
TG 57:0_2	C ₆₀ H ₁₂₀ O ₆ N	15:0_16:0_26:0; 15:0_17:0_25:0; 15:0_18:0_24:0; 16:0_16:0_25:0; 16:0_17:0_24:0	950.9116	950.9096	-2.0654
TG 58:2	C ₆₁ H ₁₁₈ O ₆ N	16:0_16:1_26:1; 16:0_18:1_24:1; 16:0_20:1_22:1; 16:1_20:0_22:1; 16:1_20:1_22:0; 18:1_18:1_22:0; 18:1_20:0_20:1	960.8959	960.8919	-4.1774
TG 58:1_1	C ₆₁ H ₁₂₀ O ₆ N	-	962.9116	962.9078	-3.9090
TG 58:1_2	C ₆₁ H ₁₂₀ O ₆ N	16:0_18:1_24:0	962.9116	962.9083	-3.3897
TG 59:1_1	C ₆₂ H ₁₂₂ O ₆ N	-	976.9272	976.9226	-4.7230
TG 59:1_2	C ₆₂ H ₁₂₂ O ₆ N	16:0_18:1_25:0	976.9272	976.9239	-3.3923
TG 60:5	C ₆₃ H ₁₁₆ O ₆ N	16:4_18:1_26:0	982.8803	982.8753	-5.0000
TG 60:3_1	C ₆₃ H ₁₂₀ O ₆ N	-	986.9116	986.9083	-3.3073
TG 60:3_2	C ₆₃ H ₁₂₀ O ₆ N	16:0_18:3_26:0; 16:2_18:1_26:0	986.9116	986.9078	-3.8139
TG 60:1	C ₆₃ H ₁₂₄ O ₆ N	16:0_18:1_26:0	990.9429	990.9398	-3.0920
TG 61:2_1	C ₆₄ H ₁₂₄ O ₆ N	-	1002.9429	1002.9378	-5.0491
TG 61:2_2	C ₆₄ H ₁₂₄ O ₆ N	17:1_17:1_27:0; 17:1_18:1_26:0; 18:1_18:1_25:0	1002.9429	1002.9395	-3.3541
TG 62:5	C ₆₅ H ₁₂₀ O ₆ N	18:2_18:3_26:0	1010.9116	1010.9078	-3.7234
TG 62:1	C ₆₅ H ₁₂₈ O ₆ N	16:0_18:1_28:0; 18:0_18:1_26:0	1018.9742	1018.9707	-3.3995
TG 63:2_1	C ₆₆ H ₁₂₈ O ₆ N	-	1030.9742	1030.9709	-3.1659
TG 63:2_2	C ₆₆ H ₁₂₈ O ₆ N	18:1_18:1_27:0	1030.9742	1030.9714	-2.6810
TG 64:4	C ₆₇ H ₁₂₆ O ₆ N	18:1_18:3_28:0; 18:2_18:2_28:0	1040.9585	1040.9548	-3.5679

TG 64:2	C ₆₇ H ₁₃₀ O ₆ N	18:1_18:1_28:0; 18:1_20:1_26:0	1044.9898	1044.9862	-3.4584
[M+NH ₄] ⁺					
DG 34:3_1	C ₃₇ H ₇₀ O ₅ N	16:0_18:3	608.5254	608.5242	-1.9703
DG 34:3_2	C ₃₇ H ₇₀ O ₅ N	-	608.5254	608.5258	0.6590
DG 34:3_3	C ₃₇ H ₇₀ O ₅ N	16:0_18:3	608.5254	608.5253	-0.1627
DG 34:2_1	C ₃₇ H ₇₂ O ₅ N	-	610.5410	610.5394	-2.6992
DG 34:2_2	C ₃₇ H ₇₂ O ₅ N	16:0_18:2	610.5410	610.5409	-0.2424
DG 34:2_3	C ₃₇ H ₇₂ O ₅ N	-	610.5410	610.5401	-1.5527
DG 34:1	C ₃₇ H ₇₄ O ₅ N	16:0_18:1	612.5567	612.5549	-2.9369
DG 36:4	C ₃₉ H ₇₂ O ₅ N	18:1_18:3	634.5410	634.5393	-2.7547
DG 36:2	C ₃₉ H ₇₆ O ₅ N	18:1/18:1	638.5723	638.5703	-3.2087
DG 34:3;O2	C ₃₇ H ₇₀ O ₇ N	16:0_18:3;O2	640.5152	640.5146	-0.9820

Abbreviations: PC: phosphatidylcholine; LPC: lyso phosphatidylcholine; PG: phosphatidylglycerol; PI: phosphatidylinositol; MGDG: monogalactosyl diacylglycerol; MGMG: monogalatosyl monoacylglycerol; DGDG: digalactosyl diacylglycerol; DGMG: digalactosyl monoacylglycerol; SQDG: sulfoquinovosyl diacylglycerol; SQMG: sulfoquinovosyl monoacylglycerol; DGTS: diacylglycerol-*N,N,N*-trimethyl homoserine; MGTS: monoacylglycerol-*N,N,N*-trimethyl homoserine; Cer: ceramide; PI-Cer: inositolphosphoceramide; TG: triacylglycerols; DG: diacylglycerols.

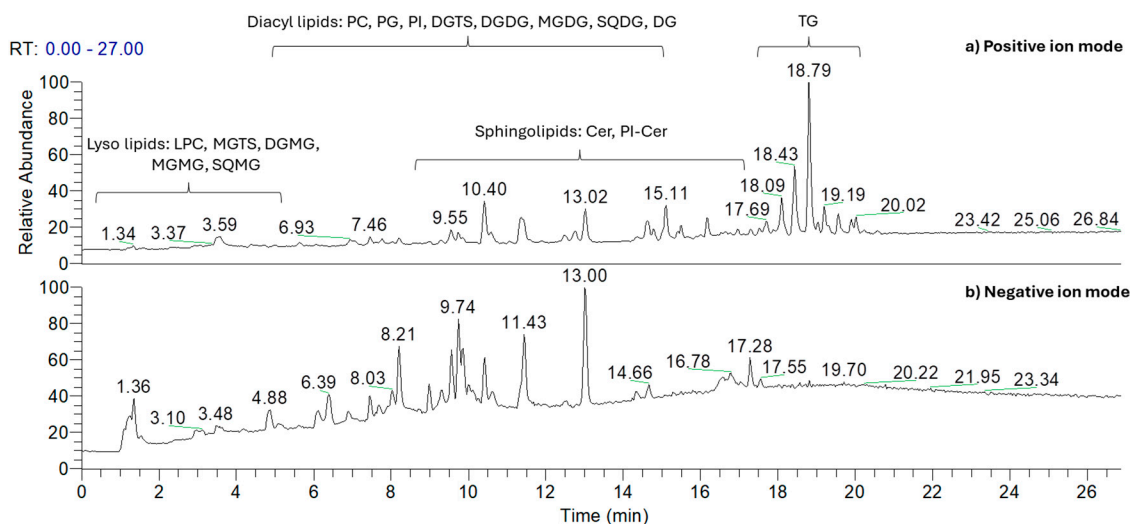
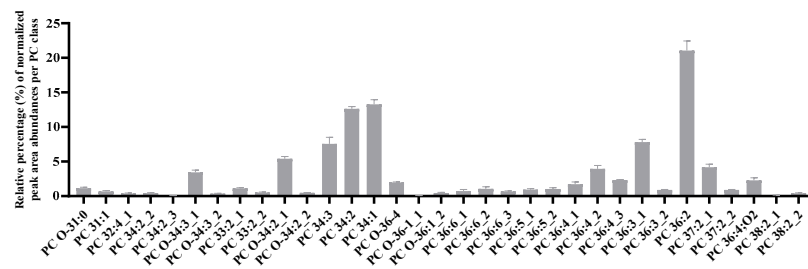
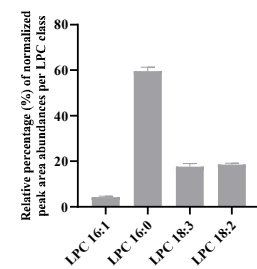


Figure S1: Representative total ion chromatogram (TIC) from C18 reversed-phase liquid chromatography-mass spectrometry (C18 RP-LC-MS) analysis of *Dunaliella salina* lipid extract, shown in positive (a) and negative (b) ion modes. Retention time for the elution of the different lipid classes identified in *D. salina* is also highlighted. Abbreviations: ceramide (Cer), ceramide phosphoinositol (PI-Cer), diacylglycerol-*N,N,N*-trimethyl homoserine (DGTS), digalactosyl diacylglycerol (DGDG), digalactosyl monoacylglycerol (DGMG), diglyceride (DG), monoacylglycerol-*N,N,N*-trimethyl homoserine (MGTS), monogalactosyl diacylglycerol (MGDG), monogalactosyl monoacylglycerol (MGMG), lyso phosphatidylcholine (LPC), phosphatidylcholine (PC), phosphatidylglycerol (PG), phosphatidylinositol (PI), sulfoquinovosyl diacylglycerol (SQDG), sulfoquinovosyl monoacylglycerol (SQMG), and triglyceride (TG).

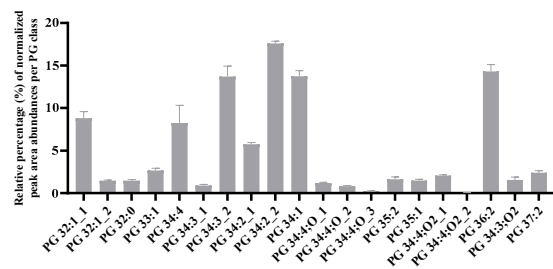
(a) PC



(b) LPC



(c) PG



(d) PI

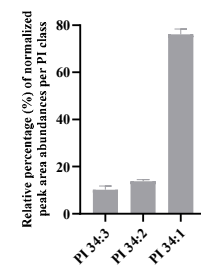
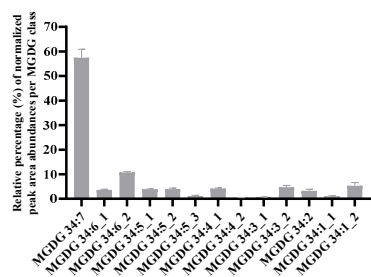
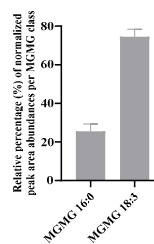


Figure S2: The relative percentage (%) of normalized peak area abundances of identified species per phospholipid class of *Dunaliella salina*. PC (a), LPC (b), PG (c), and PI (d).

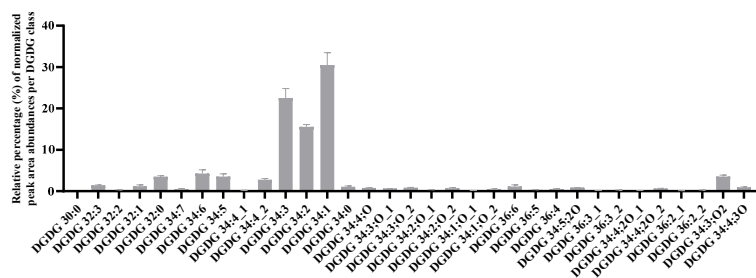
(a) MGDG



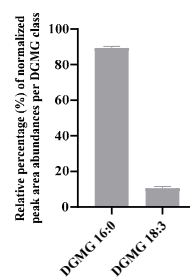
(b) MGMT



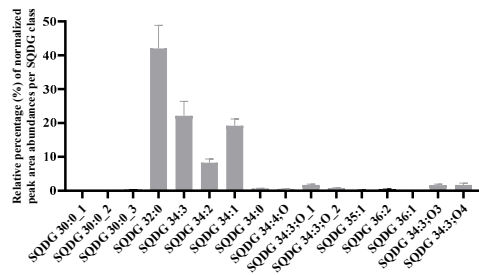
(c) DGDG



(d) DGMT



(e) SQDG

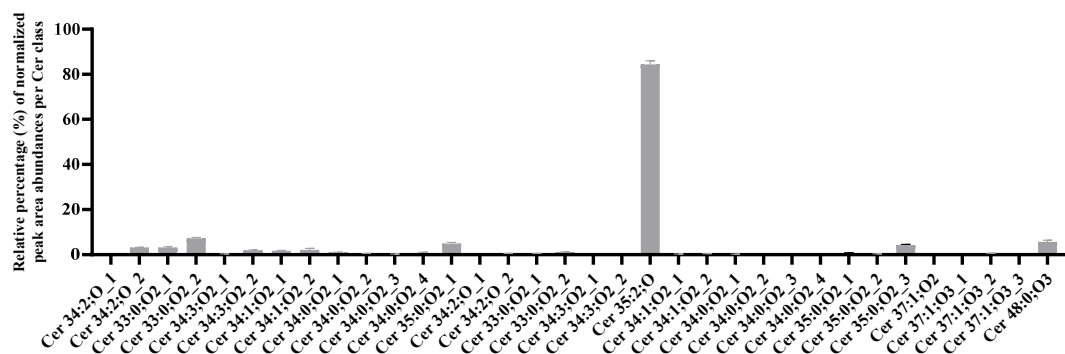


DGTIS Class	Relative percentage (%)
DGTIS 32:1	2
DGTIS 32:0	0
DGTIS 33:3	0
DGTIS 33:2	0
DGTIS 33:1	0
DGTIS 34:6	0
DGTIS 34:5	0
DGTIS 34:4	0
DGTIS 34:3	0
DGTIS 34:2	38
DGTIS 34:1	25
DGTIS 34:0	6
DGTIS 35:3	2
DGTIS 35:2	0
DGTIS 35:1	0
DGTIS 35:0	0
DGTIS 36:6	1
DGTIS 36:5	4
DGTIS 36:4	3
DGTIS 36:3	2
DGTIS 36:2	0
DGTIS 36:1	0
DGTIS 36:0	0
DGTIS 37:4	0
DGTIS 37:3	0
DGTIS 37:2	0
DGTIS 37:1	0
DGTIS 37:0	0
DGTIS 38:0	5
DGTIS 38:1	0
DGTIS 38:2	0
DGTIS 38:3	0
DGTIS 38:4	0
DGTIS 38:5	0
DGTIS 38:6	0
DGTIS 38:7	0
DGTIS 38:8	0
DGTIS 38:9	0
DGTIS 38:10	0
DGTIS 38:11	0
DGTIS 38:12	0
DGTIS 38:13	0
DGTIS 38:14	0
DGTIS 38:15	0
DGTIS 38:16	0
DGTIS 38:17	0
DGTIS 38:18	0
DGTIS 38:19	0
DGTIS 38:20	0
DGTIS 38:21	0
DGTIS 38:22	0
DGTIS 38:23	0
DGTIS 38:24	0
DGTIS 38:25	0
DGTIS 38:26	0
DGTIS 38:27	0
DGTIS 38:28	0
DGTIS 38:29	0
DGTIS 38:30	0
DGTIS 38:31	0
DGTIS 38:32	0
DGTIS 38:33	0
DGTIS 38:34	0
DGTIS 38:35	0
DGTIS 38:36	0
DGTIS 38:37	0
DGTIS 38:38	0
DGTIS 38:39	0
DGTIS 38:40	0
DGTIS 38:41	0
DGTIS 38:42	0
DGTIS 38:43	0
DGTIS 38:44	0
DGTIS 38:45	0
DGTIS 38:46	0
DGTIS 38:47	0
DGTIS 38:48	0
DGTIS 38:49	0
DGTIS 38:50	0
DGTIS 38:51	0
DGTIS 38:52	0
DGTIS 38:53	0
DGTIS 38:54	0
DGTIS 38:55	0
DGTIS 38:56	0
DGTIS 38:57	0
DGTIS 38:58	0
DGTIS 38:59	0
DGTIS 39:0	0
DGTIS 39:1	0
DGTIS 39:2	0
DGTIS 39:3	0
DGTIS 39:4	0
DGTIS 39:5	0
DGTIS 39:6	0
DGTIS 39:7	0
DGTIS 39:8	0
DGTIS 39:9	0
DGTIS 39:10	0
DGTIS 39:11	0
DGTIS 39:12	0
DGTIS 39:13	0
DGTIS 39:14	0
DGTIS 39:15	0
DGTIS 39:16	0
DGTIS 39:17	0
DGTIS 39:18	0
DGTIS 39:19	0
DGTIS 39:20	0
DGTIS 39:21	0
DGTIS 39:22	0
DGTIS 39:23	0
DGTIS 39:24	0
DGTIS 39:25	0
DGTIS 39:26	0
DGTIS 39:27	0
DGTIS 39:28	0
DGTIS 39:29	0
DGTIS 39:30	0
DGTIS 39:31	0
DGTIS 39:32	0
DGTIS 39:33	0
DGTIS 39:34	0
DGTIS 39:35	0
DGTIS 39:36	0
DGTIS 39:37	0
DGTIS 39:38	0
DGTIS 39:39	0
DGTIS 39:40	0
DGTIS 39:41	0
DGTIS 39:42	0
DGTIS 39:43	0
DGTIS 39:44	0
DGTIS 39:45	0
DGTIS 39:46	0
DGTIS 39:47	0
DGTIS 39:48	0
DGTIS 39:49	0
DGTIS 39:50	0
DGTIS 39:51	0
DGTIS 39:52	0
DGTIS 39:53	0
DGTIS 39:54	0
DGTIS 39:55	0
DGTIS 39:56	0
DGTIS 39:57	0
DGTIS 39:58	0
DGTIS 39:59	0
DGTIS 40:0	0
DGTIS 40:1	0
DGTIS 40:2	0
DGTIS 40:3	0
DGTIS 40:4	0
DGTIS 40:5	0
DGTIS 40:6	0
DGTIS 40:7	0
DGTIS 40:8	0
DGTIS 40:9	0
DGTIS 40:10	0
DGTIS 40:11	0
DGTIS 40:12	0
DGTIS 40:13	0
DGTIS 40:14	0
DGTIS 40:15	0
DGTIS 40:16	0
DGTIS 40:17	0
DGTIS 40:18	0
DGTIS 40:19	0
DGTIS 40:20	

MGTS Class	Relative percentage (% of normalized peak area abundances)
MGTS 16:1	~1
MGTS 16:0	~60
MGTS 18:3	~15
MGTS 18:2	~13
MGTS 18:1	~8
MGTS 18:3:O2	~1
MGTS 18:2:O2	~0.5
MGTS 18:3:O3	~0.5
MGTS 18:2:O3	~0.5

Figure S4: The relative percentage (%) of normalized peak area abundances of identified species per betaine lipid class of *Dunaliella salina*. DGTS (a) and MGTS (b).

(a) Cer



(b) PI-Cer

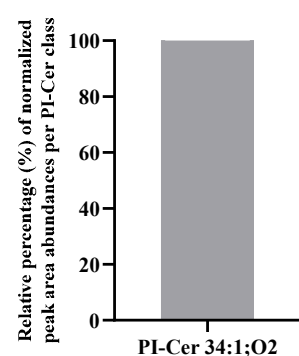
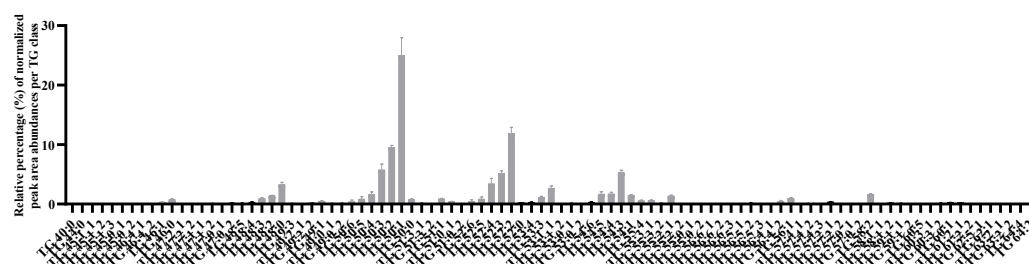
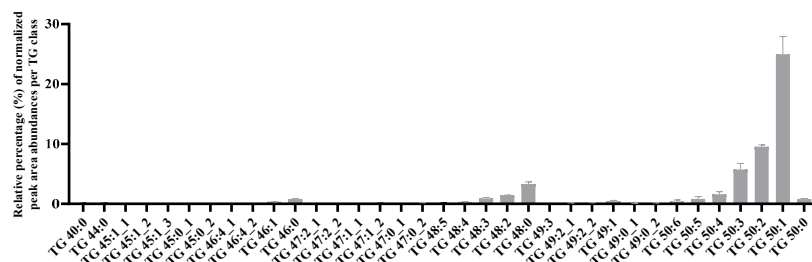


Figure S5: The relative percentage (%) of normalized peak area abundances of identified species per sphingolipid class of *Dunaliella salina*. Cer (a) and PI-Cer (b).

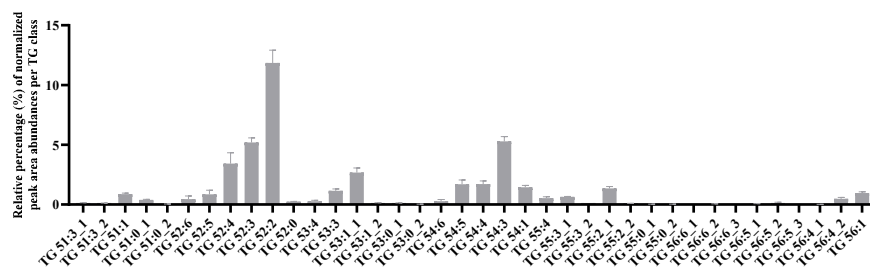
(a) TG



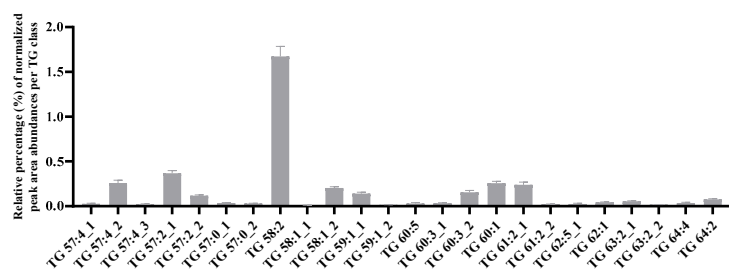
(a1) TG



(a2) TG



(a3) TG



(b) DG

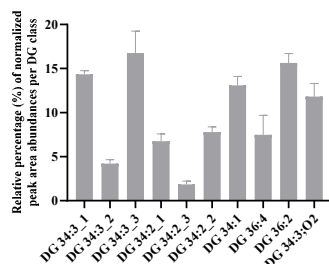


Figure S6: The relative percentage (%) of normalized peak area abundances of identified species per neutral lipid class of *Dunaliella salina*. TG (a) and DG (b).

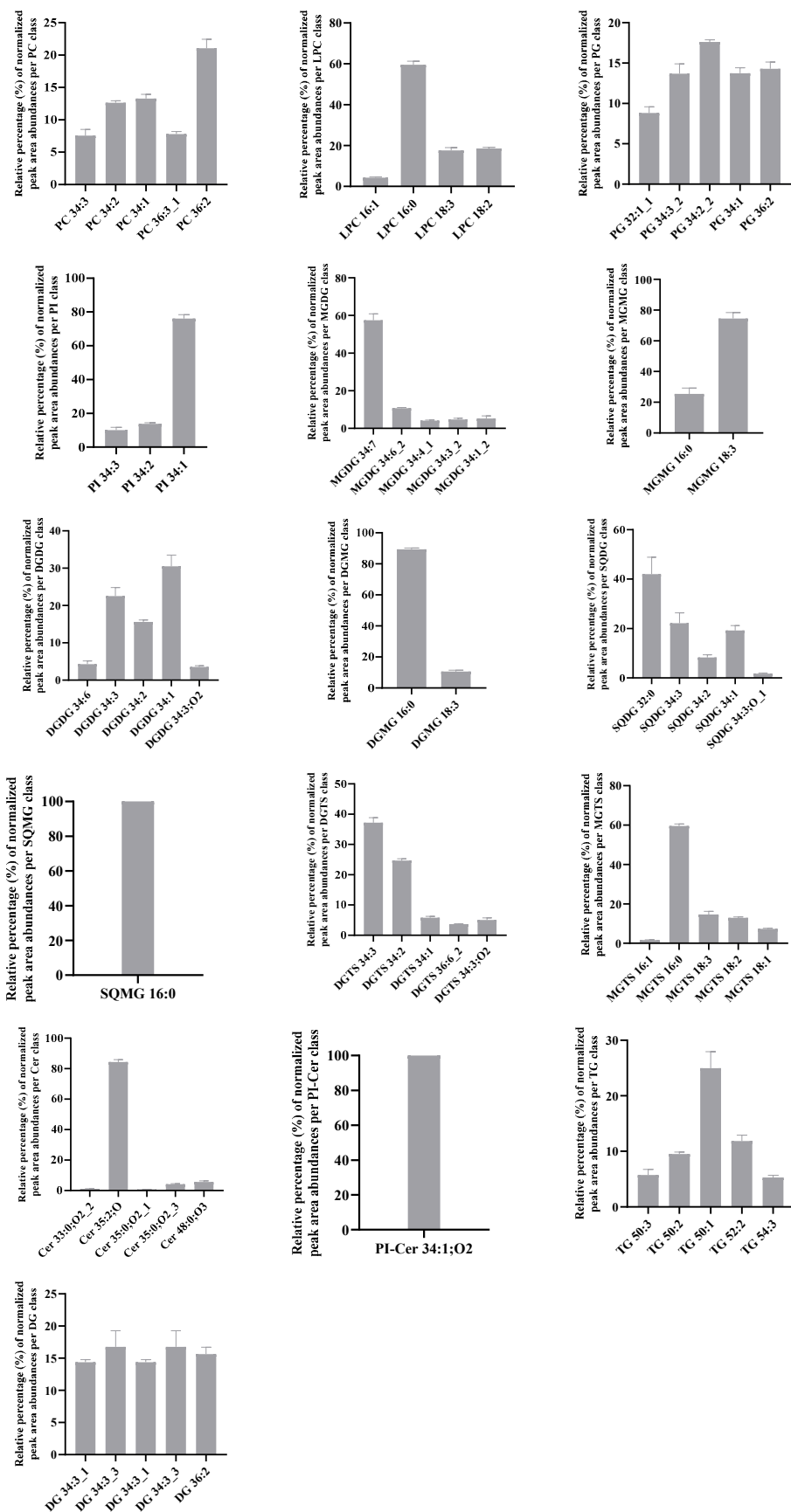


Figure S7: The relative percentage (%) of normalized peak area abundances of the top five most abundant lipid molecular species of each lipid class identified in *Dunaliella salina* lipid extract (LE) using C18 RP-LC-MS.