**Supplementary information**

# Development of a new binary matrix for the comprehensive analysis of lipids and pigments in micro- and macroalgae by MALDI-ToF/ToF mass spectrometry

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**Table S1.** List of all lipid species in the Spirulina microalgal extract identified by MALDI MS using DAN/9AA as a matrix.

| Observed *m/z* | Theoretical *m/z* | Error (ppm) | Suggested identification |
|---|---|---|---|
| 239.21 | 239.201 | 38 | $[FA\ 15:1 - H]^-$ |
| 253.21 | 253.217 | -28 | $[FA\ 16:1 - H]^-$ |
| 255.24 | 255.233 | 27 | $[FA\ 16:0 - H]^-$ |
| 277.23 | 277.217 | 47 | $[FA\ 18:3 - H]^-$ |
| 279.24 | 279.233 | 25 | $[FA\ 18:2 - H]^-$ |
| 281.25 | 281.249 | 4 | $[FA\ 18:1 - H]^-$ |
| 283.25 | 283.248 | 7 | $[FA\ 18:0 - H]^-$ |
| 293.22 | 293.212 | 27 | $[FA\ 18:3;1 - H]^-$ |
| 295.25 | 295.263 | -44 | $[FA\ 18:2;1 - H]^-$ |
| 297.24 | 297.244 | -13 | $[FA\ 18:1;1 - H]^-$ |
| 299.25 | 299.259 | -30 | $[FA\ 18:0;1 - H]^-$ |
| 395.23 | 395.220 | 25 | $[LPA\ 15:0 - H]^-$ |
| 449.25 | 449.267 | -38 | $[LPA\ 19:1 - H]^-$ |
| | 449.231 | 42 | $[LPA\ 18:2;1 - H]^-$ |
| 453.24 | 453.225 | 33 | $[LPG\ 14:1 - H]^-$ |
| 507.28 | 507.273 | 14 | $[LPG\ 18:2 - H]^-$ |
| 509.30 | 509.288 | 24 | $[LPG\ 18:1 - H]^-$ |
| 527.25 | 527.253 | -6 | $[SQMG\ 14:0 - H]^-$ |
| 536.45 | 536.438 | 22 | $[Lycopene]^{-\bullet}$ |
| 563.32 | 563.335 | -27 | $[LPG\ 22:2 - H]^-$ |
| 565.37 | 565.351 | 34 | $[LPG\ 22:1 - H]^-$ |
| 567.39 | 567.367 | 41 | $[LPG\ 22:0 - H]^-$ |
| 579.27 | 579.284 | -24 | $[SQMG\ 18:2 - H]^-$ |
| 581.32 | 581.300 | 34 | $[SQMG\ 18:1 - H]^-$ |
| 583.30 | 583.316 | -27 | $[SQMG\ 18:0 - H]^-$ |
| 591.29 | 591.261 | 49 | $[Pheo\ a\text{- phytil} - H]^{-\bullet}$ |
| 593.27 | 593.273 | -5 | $[LPI\ 18:3 - H]^-$ |
| 595.26 | 595.289 | -49 | $[LPI\ 18:2 - H]^-$ |
| 603.26 | 603.284 | -40 | $[SQMG\ 20:4 - H]^-$ |
| 605.33 | 605.300 | 50 | $[SQMG\ 20:3 - H]^-$ |
| 607.29 | 607.316 | -43 | $[SQMG\ 20:2 - H]^-$ |
| 619.31 | 619.288 | 36 | $[LPI\ 20:4 - H]^-$ |
| 621.33 | 621.305 | 40 | $[LPI\ 20:3 - H]^-$ |
| 623.29 | 623.320 | -48 | $[LPI\ 20:2 - H]^-$ |
| 715.49 | 715.456 | 48 | $[PG\ 32:3 - H]^-$ |
| 717.47 | 717.471 | -1 | $[PG\ 32:2 - H]^-$ |
| 719.47 | 719.487 | -24 | $[PG\ 32:1 - H]^-$ |
| | 719.466 | 6 | $[PA\ 38:6 - H]^-$ |
| 721.47 | 721.503 | -46 | $[PG\ 32:0 - H]^-$ |
| 723.51 | 723.497 | 18 | $[PA\ 38:4 - H]^-$ |
| 743.47 | 743.487 | -23 | $[PG\ 34:3 - H]^-$ |
| | 743.466 | 5 | $[PA\ 40:8 - H]^-$ |
| 745.49 | 745.503 | -17 | $[PG\ 34:2 - H]^-$ |
| 747.50 | 747.518 | -24 | $[PG\ 34:1 - H]^-$ |
| 761.48 | 761.439 | 54 | $[PG\ 36:8 - H]^-$ |
| 765.48 | 765.483 | -4 | $[SQDG\ 30:0 - H]^-$ |
| | 765.471 | 12 | $[PG\ 36:6 - H]^-$ |
| 767.52 | 767.487 | 43 | $[PG\ 36:5 - H]^-$ |
| 769.50 | 769.503 | -4 | $[PG\ 36:4 - H]^-$ |
| 771.53 | 771.518 | 16 | $[PG\ 36:3 - H]^-$ |

| | | | |
|---|---|---|---|
| 773.56 | 773.534 | 34 | $[PG\ 36:2 - H]^-$ |
| 775.51 | 775.549 | -50 | $[PG\ 36:1 - H]^-$ |
| 787.45 | 787.467 | -22 | $[SQDG\ 32:3 - H]^-$ |
| 789.50 | 789.483 | 22 | $[SQDG\ 32:2 - H]^-$ |
| 791.46 | 791.498 | -48 | $[SQDG\ 32:1 - H]^-$ |
| 793.52 | 793.503 | 21 | $[PG\ 38:6 - H]^-$ |
| | 793.514 | 8 | [SQDG 32:0 – H]— |
| 815.48 | 815.498 | -22 | $[SQDG\ 34:3 - H]^-$ |
| 817.52 | 817.514 | 7 | $[SQDG\ 34:2 - H]^-$ |
| 819.55 | 819.530 | 24 | $[SQDG\ 34:1 - H]^-$ |
| 831.49 | 831.503 | -16 | $[PI\ 34:3 - H]^-$ |
| 833.49 | 833.519 | -35 | $[PI\ 34:2 - H]^-$ |
| 835.52 | 835.534 | -17 | $[PI\ 34:1 - H]^-$ |
| 837.57 | 837.549 | 25 | $[PI\ 34:0 - H]^-$ |
| 870.58 | 870.566 | 16 | $[Pheo\ a]^{-\bullet}$ |
| 886.52 | 886.561 | -46 | $[Pheo\ b]^{-\bullet}$ |
| 892.63 | 892.644 | -16 | $[NAPE\ 46:4 - H]^-$ |
| 894.61 | 894.659 | -55 | $[NAPE\ 46:3 - H]^-$ |
| 981.63 | 981.652 | -30 | $[DGDG\ 39:4 - H]^-$ |
| 983.66 | 983.668 | -8 | $[DGDG\ 39:3 - H]^-$ |
| 957.53 | 957.506 | 25 | $[As\text{-}PL\ 32:0\text{-}H]^-$ |

Legend: FA=fatty acid; LPA=lysophoshatidic acid; LPE=lysophosphatidylethanolamine; LPG=lysophosphatidylglycerol; LPI=lysophosphatidylinositol; LPC=lysophosphatidylcholine; SQMG=sulfoquinovosylmonoacylglycerol; SQDG=sulfoquinovosyldiacylglycerol; DGDG=digalactosyldiglyceride; PG=phosphatidylglycerol; PA= phosphatidic acid; PI=phosphatidylinositol; PE=phosphatidylethanolamine; NAPE=N-acyl-phosphatidylethanolamine As-PL=diacylarsenosugar phospholipids; Pheo=pheophytin .

**Table S2.** List of all lipid species in the Chlorella microalgal extract identified by MALDI MS using DAN/9AA as matrix.

| Observed *m/z* | Theoretical *m/z* | Error (ppm) | Suggested identification |
|---|---|---|---|
| 239.21 | 239.201 | 38 | $[FA\ 15:1 - H]^-$ |
| 249.20 | 249.186 | 56 | $[FA\ 16:3 - H]^-$ |
| 251.21 | 251.202 | 32 | $[FA\ 16:2 - H]^-$ |
| 253.21 | 253.217 | -28 | $[FA\ 16:1 - H]^-$ |
| 255.24 | 255.233 | 27 | $[FA\ 16:0 - H]^-$ |
| 277.22 | 277.217 | 11 | $[FA\ 18:3 - H]^-$ |
| 279.24 | 279.233 | 25 | $[FA\ 18:2 - H]^-$ |
| 281.25 | 281.249 | 4 | $[FA\ 18:1 - H]^-$ |
| 283.26 | 283.248 | 42 | $[FA\ 18:0 - H]^-$ |
| 291.23 | 291.233 | -10 | $[FA\ 18:4;1 - H]^-$ |
| 293.20 | 293.212 | -41 | $[FA\ 18:3;1 - H]^-$ |
| 295.25 | 295.263 | -44 | $[FA\ 18:2;1 - H]^-$ |
| 297.27 | 297.244 | 42 | $[FA\ 18:1;1 - H]^-$ |
| 349.28 | 349.274 | 17 | $[FA\ 22:3;1 - H]^-$ |
| 481.26 | 481.257 | 6 | $[LPG\ 16:1 - H]^-$ |
| 483.26 | 483.273 | -27 | $[LPG\ 16:0 - H]^-$ |
| 505.24 | 505.257 | -34 | $[LPG\ 18:3 - H]^-$ |
| 507.28 | 507.273 | 14 | $[LPG\ 18:2 - H]^-$ |
| 555.26 | 555.284 | -43 | $[SQMG\ 16:0 - H]^-$ |
| 592.24 | 592.269 | -49 | $[Pheo\ a\text{- phytil}]^{-\bullet}$ |
| 688.49 | 688.492 | -3 | $[PE\ 32:1–H]^-$ |
| 710.50 | 710.477 | 32 | $[PE\ 34:4–H]^-$ |
| 712.49 | 712.492 | -3 | $[PE\ 34:3–H]^-$ |
| 714.52 | 714.508 | 17 | $[PE\ 34:2–H]^-$ |
| 719.50 | 719.487 | 18 | $[PG\ 32:1 - H]^-$ |
|  | 719.466 | 47 | $[PA\ 38:6 - H]^-$ |
| 721.53 | 721.503 | 37 | $[PG\ 32:0 - H]^-$ |
| 741.47 | 741.450 | 27 | $[PA\ 40:9 - H]^-$ |
| 743.50 | 743.487 | 17 | $[PG\ 34:3 - H]^-$ |
|  | 743.466 | 46 | $[PA\ 40:8 - H]^-$ |
| 745.54 | 745.503 | 50 | $[PG\ 34:2 - H]^-$ |
| 747.55 | 747.518 | 43 | $[PG\ 34:1 - H]^-$ |
| 765.48 | 765.483 | -4 | $[SQDG\ 30:0 - H]^-$ |
|  | 765.471 | -14 | $[PG\ 36:6 - H]^-$ |
| 767.47 | 767.487 | -22 | $[PG\ 36:5 - H]^-$ |
| 769.50 | 769.503 | -4 | $[PG\ 36:4 - H]^-$ |
| 787.49 | 787.467 | 29 | $[SQDG\ 32:3 - H]^-$ |
| 789.52 | 789.483 | 47 | $[SQDG\ 32:2 - H]^-$ |
| 791.52 | 791.498 | 28 | $[SQDG\ 32:1 - H]^-$ |
| 793.54 | 793.503 | 47 | $[PG\ 38:6 - H]^-$ |
|  | 793.514 | 33 | $[SQDG\ 32:0 - H]^-$ |
| 795.51 | 795.518 | -10 | $[PG\ 38:5 - H]^-$ |
| 803.53 | 803.472 | 72 | $[PI\ 32:3 - H]^-$ |
|  | 803.581 | -76 | $[PG\ 38:1 - H]^-$ |
| 805.47 | 805.487 | -21 | $[PI\ 32:2 - H]^-$ |
| 807.48 | 807.503 | -28 | $[PI\ 32:1 - H]^-$ |
| 815.53 | 815.498 | 39 | $[SQDG\ 34:3 - H]^-$ |
| 817.55 | 817.514 | 44 | $[SQDG\ 34:2 - H]^-$ |
| 819.56 | 819.530 | 37 | $[SQDG\ 34:1 - H]^-$ |
| 821.54 | 821.545 | -6 | $[SQDG\ 34:0 - H]^-$ |

| | | | |
|---|---|---|---|
| 831.50 | 831.503 | -4 | $[PI\ 34:3 - H]^-$ |
| 833.54 | 833.519 | 25 | $[PI\ 34:2 - H]^-$ |
| 835.56 | 835.534 | 31 | $[PI\ 34:1 - H]^-$ |
| 839.48 | 839.472 | 10 | $[PI\ 35:6 - H]^-$ |
| | 839.498 | -21 | $[SQDG\ 36:5 - H]^-$ |
| 841.50 | 841.487 | 15 | $[PI\ 35:5 - H]^-$ |
| | 841.514 | -17 | $[SQDG\ 36:4 - H]^-$ |
| 843.51 | 843.503 | 8 | $[PI\ 35:4 - H]^-$ |
| | 843.530 | -24 | $[SQDG\ 36:3 - H]^-$ |
| 870.60 | 870.566 | 39 | $[Pheo\ a]^{-\bullet}$ |
| 886.60 | 886.561 | 44 | $[Pheo\ b]^{-\bullet}$ |

**Table S3.** List of all lipid species in the Dulse macroalgal extract identified by MALDI MS using DAN/9AA as matrix.

| Observed *m/z* | Theoretica *m/z* | Error (ppm) | Suggested identification |
|---|---|---|---|
| 239.20 | 239.201 | -4 | $[FA\ 15:1 - H]^-$ |
| 249.18 | 249.186 | -24 | $[FA\ 16:3 - H]^-$ |
| 253.22 | 253.217 | 12 | $[FA\ 16:1 - H]^-$ |
| 255.23 | 255.233 | -12 | $[FA\ 16:0 - H]^-$ |
| 271.23 | 271.228 | 7 | $[FA\ 16:0;1 - H]^-$ |
| 277.22 | 277.217 | 11 | $[FA\ 18:3 - H]^-$ |
| 279.22 | 279.233 | -47 | $[FA\ 18:2 - H]^-$ |
| 281.26 | 281.249 | 39 | $[FA\ 18:1 - H]^-$ |
| 283.26 | 283.248 | 42 | $[FA\ 18:0 - H]^-$ |
| 301.22 | 301.217 | 10 | $[FA\ 20:5 - H]^-$ |
| 303.24 | 303.233 | 23 | $[FA\ 20:4 - H]^-$ |
| 305.24 | 305.249 | -29 | $[FA\ 20:3 - H]^-$ |
| 317.24 | 317.248 | -25 | $[FA\ 21:4 - H]^-$ |
| 319.25 | 319.264 | -44 | $[FA\ 21:3 - H]^-$ |
| 327.22 | 327.233 | -40 | $[FA\ 22:6 - H]^-$ |
| 329.24 | 329.249 | -27 | $[FA\ 22:5 - H]^-$ |
| 331.25 | 331.264 | -42 | $[FA\ 22:4 - H]^-$ |
| 333.27 | 333.280 | -30 | $[FA\ 22:3 - H]^-$ |
| 335.29 | 335.296 | -18 | $[FA\ 22:2 - H]^-$ |
| 347.26 | 347.259 | 3 | $[FA\ 22:4;1 - H]^-$ |
| 349.27 | 349.274 | -11 | $[FA\ 22:3;1 - H]^-$ |
| 351.27 | 351.290 | -57 | $[FA\ 22:2;1 - H]^-$ |
| 453.24 | 453.225 | 33 | $[LPG\ 14:1 - H]^-$ |
| 455.23 | 455.242 | -26 | $[LPG\ 14:0 - H]^-$ |
| 481.27 | 481.257 | 27 | $[LPG\ 16:1 - H]^-$ |
| 483.27 | 483.273 | -6 | $[LPG\ 16:0 - H]^-$ |
| 529.26 | 529.257 | 6 | $[LPG\ 20:5 - H]^-$ |
| 537.33 | 537.319 | 20 | $[LPG\ 20:1 - H]^-$ |
| 555.27 | 555.284 | -25 | $[SQMG\ 16:0 - H]^-$ |
| 586.25 | 586.280 | -51 | $[Phycocyanobilin\ diacid]^{-\bullet}$ $[Phycoerythrobilin]^{-\bullet}$ |
| 592.30 | 592.269 | 52 | $[Pheo\ a\text{- phytil}]^{-\bullet}$ |
| 601.25 | 601.269 | -32 | $[SQMG\ 20:5 - H]^-$ |
| 603.30 | 603.284 | 27 | $[SQMG\ 20:4 - H]^-$ |
| 605.27 | 605.300 | -50 | $[SQMG\ 20:3 - H]^-$ |
| 607.29 | 607.316 | -43 | $[SQMG\ 20:2 - H]^-$ |
| 608.24 | 608.263 | -38 | $[Pheo\ b\text{- phytil}]^{-\bullet}$ |
| 693.45 | 693.450 | 0 | $[PA\ 36:5 - H]^-$ |
| 721.51 | 721.503 | 10 | $[PG\ 32:0 - H]^-$ |
| 723.51 | 723.497 | 18 | $[PA\ 38:4 - H]^-$ |
| 737.46 | 737.439 | 28 | $[PG\ 36:4 - H]^-$ |
| 747.54 | 747.518 | 29 | $[PG\ 34:1 - H]^-$ |
| 765.50 | 765.483 | 22 | $[SQDG\ 30:0 - H]^-$ |
|  | 765.471 | 38 | $[PG\ 36:6 - H]^-$ |
| 767.48 | 767.487 | -9 | $[PG\ 36:5 - H]^-$ |
| 769.50 | 769.503 | -4 | $[PG\ 36:4 - H]^-$ |
| 773.55 | 773.534 | 21 | $[PG\ 36:2 - H]^-$ |
| 775.56 | 775.549 | 14 | $[PG\ 36:1 - H]^-$ |
| 777.57 | 777.565 | 6 | $[PG\ 36:0 - H]^-$ |
| 781.48 | 781.502 | -28 | $[PG\ 37:5 - H]^-$ |

| | | | |
|---|---|---|---|
| 783.52 | 783.518 | 3 | $[PG\ 37:4 - H]^-$ |
| 785.53 | 785.534 | -5 | $[PG\ 37:3 - H]^-$ |
| 789.49 | 789.483 | 9 | $[SQDG\ 32:2 - H]^-$ |
| 791.52 | 791.498 | 28 | $[SQDG\ 32:1 - H]^-$ |
| 793.53 | 793.503 | 34 | $[PG\ 38:6 - H]^-$ |
| | 793.514 | 20 | $[SQDG\ 32:0 - H]^-$ |
| 803.51 | 803.472 | 47 | $[PI\ 32:3 - H]^-$ |
| 805.48 | 805.487 | -9 | $[PI\ 32:2 - H]^-$ |
| 839.51 | 839.472 | 45 | $[PI\ 35:6 - H]^-$ |
| | 839.498 | 14 | $[SQDG\ 36:5 - H]^-$ |
| 841.49 | 841.487 | 4 | $[PI\ 35:5 - H]^-$ |
| | 841.514 | -29 | $[SQDG\ 36:4 - H]^-$ |
| 843.52 | 843.503 | 20 | $[PI\ 35:4 - H]^-$ |
| | 843.530 | -12 | $[SQDG\ 36:3 - H]^-$ |
| 855.52 | 855.503 | 20 | $[PI\ 36:5 - H]^-$ |
| 857.52 | 857.519 | 1 | $[PI\ 36:4 - H]^-$ |
| 870.60 | 870.566 | 39 | $[Pheo\ a]^{-\bullet}$ |
| 885.58 | 885.550 | 34 | $[PI\ 38:4 - H]^-$ |
| 886.60 | 886.561 | 44 | $[Pheo\ b]^{-\bullet}$ |
| 901.56 | 901.581 | -23 | $[PI\ 39:3 - H]^-$ |

**Table S4.** List of all lipid species in the Nori macroalgal extract identified by MALDI MS using DAN/9AA as matrix.

| Observed *m/z* | Theoretical *m/z* | Error (ppm) | Suggested identification |
|---|---|---|---|
| 239.19 | 239.201 | -46 | $[FA\ 15:1 - H]^-$ |
| 243.20 | 243.197 | 12 | $[FA\ 14:0;1 - H]^-$ |
| 253.22 | 253.217 | 12 | $[FA\ 16:1 - H]^-$ |
| 255.23 | 255.233 | -12 | $[FA\ 16:0 - H]^-$ |
| 271.23 | 271.228 | 7 | $[FA\ 16:0;1 - H]^-$ |
| 277.22 | 277.217 | 11 | $[FA\ 18:3 - H]^-$ |
| 279.23 | 279.233 | -11 | $[FA\ 18:2 - H]^-$ |
| 281.26 | 281.249 | 39 | $[FA\ 18:1 - H]^-$ |
| 283.25 | 283.248 | 7 | $[FA\ 18:0 - H]^-$ |
| 291.23 | 291.233 | -10 | $[FA\ 18:4;1 - H]^-$ |
| 293.22 | 293.212 | 27 | $[FA\ 18:3;1 - H]^-$ |
| 295.27 | 295.263 | 24 | $[FA\ 18:2;1 - H]^-$ |
| 297.23 | 297.244 | -47 | $[FA\ 18:1;1 - H]^-$ |
| 299.26 | 299.259 | 3 | $[FA\ 18:0;1 - H]^-$ |
| 301.22 | 301.217 | 10 | $[FA\ 20:5 - H]^-$ |
| 307.25 | 307.264 | -46 | $[FA\ 20:2 - H]^-$ |
| 317.22 | 317.212 | 25 | $[FA\ 20:5;1 - H]^-$ |
| 319.24 | 319.228 | 38 | $[FA\ 20:4;1 - H]^-$ |
| 329.24 | 329.249 | -27 | $[FA\ 22:5 - H]^-$ |
| 331.25 | 331.264 | -42 | $[FA\ 22:4 - H]^-$ |
| 333.28 | 333.280 | 0 | $[FA\ 22:3 - H]^-$ |
| 335.29 | 335.296 | -18 | $[FA\ 22:2 - H]^-$ |
| 347.25 | 347.259 | -26 | $[FA\ 22:4;1 - H]^-$ |
| 349.29 | 349.274 | 46 | $[FA\ 22:3;1 - H]^-$ |
| 351.27 | 351.290 | -57 | $[FA\ 22:2;1 - H]^-$ |
| 353.30 | 353.306 | -17 | $[FA\ 22:1;1 - H]^-$ |
| 385.32 | 385.311 | 23 | $[FA\ 26:5 - H]^-$ |
| 387.31 | 387.327 | -44 | $[FA\ 26:4 - H]^-$ |
| 409.24 | 409.236 | 10 | $[LPA\ 16:0 - H]^-$ |
| 429.21 | 429.205 | 12 | $[LPA\ 18:4 - H]^-$ |
| 431.21 | 431.220 | -23 | $[LPA\ 18:3 - H]^-$ |
| 455.24 | 455.242 | -4 | $[LPG\ 14:0 - H]^-$ |
| 483.28 | 483.273 | 14 | $[LPG\ 16:0 - H]^-$ |
| 505.27 | 505.257 | 26 | $[LPG\ 18:3 - H]^-$ |
| 507.28 | 507.273 | 14 | $[LPG\ 18:2 - H]^-$ |
| 509.30 | 509.288 | 24 | $[LPG\ 18:1 - H]^-$ |
| 555.31 | 555.284 | 47 | $[SQMG\ 16:0 - H]^-$ |
| 575.25 | 575.253 | -5 | $[SQMG\ 18:4 - H]^-$ |
| 577.25 | 577.269 | -33 | $[SQMG\ 18:3 - H]^-$ |
| 591.29 | 591.261 | 49 | $[Pheo\ a\text{- phytil} - H]^{-\bullet}$ |
| 592.24 | 592.269 | -49 | $[Pheo\ a\text{- phytil}]^{-\bullet}$ |
| 601.28 | 601.269 | 18 | $[SQMG\ 20:5 - H]^-$ |
| 603.29 | 603.284 | 10 | $[SQMG\ 20:4 - H]^-$ |
| 605.29 | 605.300 | -17 | $[SQMG\ 20:3 - H]^-$ |
| 630.39 | 630.414 | -38 | $[PE\ 28:2 - H]^-$ |
| 693.45 | 693.450 | 0 | $[PA\ 36:5 - H]^-$ |
| 719.50 | 719.487 | 18 | $[PG\ 32:1 - H]^-$ |
|  | 719.466 | 47 | $[PA\ 38:6 - H]^-$ |
| 723.53 | 723.497 | 46 | $[PA\ 38:4 - H]^-$ |
| 737.48 | 737.439 | 56 | $[PG\ 36:4 - H]^-$ |

| | | | |
|---|---|---|---|
| 745.52 | 745.503 | 23 | $[PG\ 34:2 - H]^-$ |
| 747.55 | 747.518 | 43 | $[PG\ 34:1 - H]^-$ |
| 765.52 | 765.483 | 48 | $[SQDG\ 30:0 - H]^-$ |
| | 765.471 | 64 | $[PG\ 36:6 - H]^-$ |
| 773.55 | 773.534 | 21 | $[PG\ 36:2 - H]^-$ |
| 775.56 | 775.549 | 14 | $[PG\ 36:1 - H]^-$ |
| 791.52 | 791.498 | 28 | $[SQDG\ 32:1 - H]^-$ |
| 793.54 | 793.503 | 47 | $[PG\ 38:6 - H]^-$ |
| | 793.514 | 33 | [SQDG 32:0 – H]— |
| 803.52 | 803.472 | 35 | $[PI\ 32:3 - H]^-$ |
| 805.47 | 805.487 | -21 | $[PI\ 32:2 - H]^-$ |
| 807.52 | 807.503 | 21 | $[PI\ 32:1 - H]^-$ |
| 815.52 | 815.498 | 27 | $[SQDG\ 34:3 - H]^-$ |
| 817.55 | 817.514 | 44 | $[SQDG\ 34:2 - H]^-$ |
| 819.57 | 819.530 | 49 | $[SQDG\ 34:1 - H]^-$ |
| 831.53 | 831.503 | 32 | $[PI\ 34:3 - H]^-$ |
| 833.54 | 833.519 | 25 | $[PI\ 34:2 - H]^-$ |
| 835.54 | 835.534 | 7 | $[PI\ 34:1 - H]^-$ |
| 839.51 | 839.472 | 45 | $[PI\ 35:6 - H]^-$ |
| | 839.498 | 14 | $[SQDG\ 36:5 - H]^-$ |
| 870.60 | 870.566 | 39 | $[Pheo\ a]^{-\bullet}$ |
| 885.58 | 885.550 | 34 | $[PI\ 38:4 - H]^-$ |
| 886.60 | 886.561 | 44 | $[Pheo\ b]^{-\bullet}$ |
| 915.59 | 915.597 | -8 | $[PI\ 40:3 - H]^-$ |