



## Lipidomics

**Service Code: LPD**

**Summary:** Global Lipid Profiling including representation from over 10 lipid classes. Preparation of Lipids from cultured cells, tissues or plasma via a modified Bligh-Dyer extraction, followed by LC-MS separation on a modified reversed phase column in a 15 min cycle. Internal standard are included for each lipid class measured for normalization and quality control purposed. CSVs are generally 10-30%.

**Container:** 1.5mL Micro Tube or equivalent

**Normal Volume:** Plasma (100  $\mu$ L) Tissue (50-100 mg); Cell (1.5E7).

**Minimal Volume:** Plasma (50  $\mu$ L) Tissue (30 mg); Cells (~2.5E6)

**Sample Collection:** Please see our detailed sample collection protocol on the Michigan Regional Comprehensive Metabolomics Resource Core (MRC<sup>2</sup>) website before preparing samples for analysis or contact the core director at the number below for details.

**Lipid species typically detected in normal Human Plasma with 25% RSD or less (representative list only - lipids may vary with different conditions (disease states) and will vary by matrix (tissue, cells, etc.):**

Name	Avg Mass	RT	RSD (25 measurements)	Mode
IS Ceramide	534.524	7.06	5.81	Positive
IS DG 34:1	612.5561	8.01	6.85	Positive
IS lysoPC 17:0	510.356	2.01	3.79	Positive
IS MG 17:0	362.3265	3.26	6.16	Positive
IS PC 34:0	762.6007	7.33	4.46	Positive
IS PE 34:0	720.5538	7.36	6.01	Positive
IS SM 35:1	717.5905	6.09	4.97	Positive
IS D31-TAG	918.3543	10.47	14.63	Positive
CE(16:1)	640.6032	10.72	18.13	Positive
CE(18:0)	670.6502	11.36	16.03	Positive
CE(18:1)	668.6345	11	17.75	Positive
CE(18:2)	666.6189	10.79	8.47	Positive
CE(18:3)	664.6032	10.52	8.82	Positive
CE(20:2)	694.6502	11.07	16.65	Positive
CE(20:3)	692.6345	10.79	9.56	Positive
CE(20:4)	690.6189	10.58	8.56	Positive
CE(20:5)	688.6032	10.41	9.58	Positive



MEDICAL SCHOOL  
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CE(22:4)	718.6502	10.89	24.46	Positive
CE(22:5)	716.6345	10.73	19.87	Positive
CE(22:6)	714.6189	10.51	6.60	Positive
DG 20:0	418.3531	1.3	17.15	Positive
DG 30:0	558.5094	7.43	19.49	Positive
DG 32:0	586.5407	7.95	8.98	Positive
DG 32:1	584.5251	7.55	10.18	Positive
DG 32:2	582.5094	7.12	15.92	Positive
DG 33:0	600.5564	8.27	16.89	Positive
DG 33:1	598.5407	7.79	20.05	Positive
DG 33:4	592.4938	2.38	19.69	Positive
DG 34:0	614.572	8.45	11.28	Positive
DG 34:2	610.5407	7.69	6.63	Positive
DG 34:3	608.5251	7.26	10.68	Positive
DG 35:0	628.5877	8.73	17.57	Positive
DG 35:1	626.572	8.29	13.68	Positive
DG 35:2	624.5564	7.89	22.31	Positive
DG 36:0	642.6033	8.77	20.73	Positive
DG 36:1	640.5877	8.54	7.18	Positive
DG 36:2	638.572	8.1	6.32	Positive
DG 36:3	636.5564	7.75	6.47	Positive
DG 36:4	634.5407	7.42	5.83	Positive
DG 36:5	632.5251	7.02	14.36	Positive
DG 37:0	656.6189	9.14	22.94	Positive
DG 38:0	670.6346	9.19	21.29	Positive
DG 38:2	666.6033	8.46	20.54	Positive
DG 38:3	664.5877	8.3	18.49	Positive
DG 38:4	662.572	8.03	14.90	Positive
DG 38:5	660.5564	7.66	9.40	Positive
DG 38:6	658.5407	7.34	11.41	Positive
DG 38:7	656.5251	6.94	22.02	Positive
DG 40:0	698.6659	9.62	24.09	Positive
DG 40:6	686.572	7.77	23.83	Positive
DG 40:7	684.5564	7.59	18.43	Positive
DG 42:1	724.6815	8.77	20.30	Positive
DG 42:6	714.6033	10.09	24.63	Positive
lysoPC 14:0	468.309	1.12	5.02	Positive
lysoPC 15:0	482.3246	1.28	6.30	Positive



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lysoPC 16:0	496.3403	1.61	7.38	Positive
lysoPC 16:1	494.3246	1.2	3.81	Positive
lysoPC 17:1	508.3403	1.48	10.45	Positive
lysoPC 18:0	524.3716	1.8	13.07	Positive
lysoPC 18:1	522.356	1.77	3.46	Positive
lysoPC 18:2	520.3403	1.38	4.21	Positive
lysoPC 18:3	518.3246	1.11	5.56	Positive
lysoPC 19:0	538.3873	2.93	9.99	Positive
lysoPC 20:0	552.4029	3.41	8.27	Positive
lysoPC 20:1	550.3873	2.63	8.42	Positive
lysoPC 20:2	548.3716	2.06	11.81	Positive
lysoPC 20:3	546.356	1.63	5.36	Positive
lysoPC 20:4	544.3403	1.3	4.11	Positive
lysoPC 20:5	542.3246	1.08	7.88	Positive
lysoPC 22:0	580.4342	4.4	16.46	Positive
lysoPC 22:1	578.4186	3.53	17.77	Positive
lysoPC 22:4	572.3716	1.89	13.97	Positive
lysoPC 22:5	570.356	1.51	7.54	Positive
lysoPC 22:6	568.3403	1.28	6.53	Positive
lysoPC 24:0	608.4655	5.29	16.66	Positive
lysoPC 24:1	606.4498	4.43	21.13	Positive
lysoPE 16:0	454.2934	1.75	10.03	Positive
lysoPE 18:0	482.3246	2.53	7.23	Positive
lysoPE 18:1	480.309	1.89	9.56	Positive
lysoPE 18:2	478.2934	1.4	6.69	Positive
lysoPE 20:4	502.2934	1.34	8.23	Positive
lysoPE 22:5	528.309	1.59	21.96	Positive
lysoPE 22:6	526.2933	1.31	8.83	Positive
MG 16:0	337.293	2.81	18.99	Positive
MG 17:0	351.3087	3.26	14.08	Positive
MG 18:0	365.3243	3.64	11.13	Positive
MG 18:1	374.327	3.08	6.92	Positive
MG 18:2	372.3114	2.38	18.96	Positive
MG 19:0	390.3583	4.25	23.34	Positive
MG 20:0	404.374	4.72	12.58	Positive
MG 22:0	432.4053	5.61	14.89	Positive
PC 15:0	496.3039	1.22	18.54	Positive
PC 21:0	580.3978	1.69	19.94	Positive



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PC 28:0	678.5074	5.38	11.98	Positive
PC 29:0	692.523	5.73	20.91	Positive
PC 30:0	706.5387	5.99	7.61	Positive
PC 30:1	704.523	5.64	10.26	Positive
PC 31:0	720.5543	6.3	13.63	Positive
PC 32:0	734.57	6.67	5.65	Positive
PC 32:1	732.5543	6.33	4.52	Positive
PC 32:2	730.5387	6.15	5.88	Positive
PC 32:3	728.523	6.13	16.60	Positive
PC 33:0	748.5856	6.95	14.85	Positive
PC 33:1	746.57	6.34	7.58	Positive
PC 33:2	744.5543	6.03	6.80	Positive
PC 33:4	740.523	5.85	23.08	Positive
PC 34:1	760.5856	6.75	8.30	Positive
PC 34:3	756.5543	5.84	5.24	Positive
PC 34:4	754.5387	5.68	7.54	Positive
PC 35:1	774.6013	7.07	6.49	Positive
PC 35:2	772.5856	6.64	5.52	Positive
PC 35:3	770.57	6.18	11.05	Positive
PC 35:4	768.5543	5.98	10.00	Positive
PC 35:5	766.5387	6.26	10.36	Positive
PC 36:1	788.617	5.97	24.74	Positive
PC 36:4	782.57	6.06	14.52	Positive
PC 36:5	780.5543	5.83	4.80	Positive
PC 36:6	800.5206	5.59	21.46	Positive
PC 36:7	776.523	5.33	16.74	Positive
PC 37:2	800.617	7.01	11.30	Positive
PC 37:3	798.6013	6.83	9.29	Positive
PC 37:4	796.5856	6.7	5.15	Positive
PC 37:5	794.57	6.15	24.04	Positive
PC 37:6	792.5543	5.85	17.92	Positive
PC 37:7	790.5387	6.49	23.01	Positive
PC 38:1	816.6482	8.03	18.80	Positive
PC 38:2	814.6326	7.6	6.86	Positive
PC 38:3	812.617	7.24	9.68	Positive
PC 38:4	810.6013	6.94	8.11	Positive
PC 38:6	806.57	6.05	7.95	Positive
PC 38:7	804.5543	5.67	13.76	Positive



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PC 38:8	802.5387	5.86	11.41	Positive
PC 38:9	800.523	5.62	20.98	Positive
PC 39:4	824.617	7.3	19.71	Positive
PC 39:5	822.6013	6.37	14.28	Positive
PC 39:6	820.5856	6.46	9.64	Positive
PC 40:10	826.5387	5.45	18.03	Positive
PC 40:2	842.6639	8.24	24.98	Positive
PC 40:4	838.6326	7.44	10.62	Positive
PC 40:5	836.617	7.2	6.96	Positive
PC 40:6	834.6013	6.89	10.09	Positive
PC 40:7	832.5856	6.26	10.36	Positive
PC 40:8	830.57	5.87	10.41	Positive
PC 42:10	854.57	5.8	14.21	Positive
PC 42:11	852.5543	5.33	20.91	Positive
PC 42:2	870.6952	8.84	22.62	Positive
PC 42:5	864.6482	7.64	18.20	Positive
PC 42:6	862.6326	7.29	21.73	Positive
PC 42:9	856.5856	6.07	18.92	Positive
PE 34:0	742.5363	7.38	17.06	Positive
PE 34:1	718.5387	6.92	14.92	Positive
PE 34:2	716.523	6.45	8.06	Positive
PE 36:1	746.57	7.49	25.10	Positive
PE 36:2	744.5543	7.09	8.13	Positive
PE 36:3	742.5387	6.6	8.20	Positive
PE 36:4	740.523	6.44	16.70	Positive
PE 38:4	768.5543	7.08	9.49	Positive
PE 38:5	766.5387	6.55	10.36	Positive
PE 38:6	764.523	6.33	10.67	Positive
PE 40:6	792.5543	6.96	12.95	Positive
PE 40:7	790.5387	6.48	23.01	Positive
plasmeyl-PC 18:0	544.3379	1.89	4.72	Positive
plasmeyl-PC 30:0	712.5257	5.54	21.36	Positive
plasmeyl-PC 36:3	790.5727	6.77	8.26	Positive
plasmeyl-PC 38:0	824.6509	8.06	9.41	Positive
plasmeyl-PC 38:4	816.5883	7.01	15.31	Positive
plasmeyl-PE 34:1	702.5438	7.24	20.31	Positive
plasmeyl-PE 34:2	700.5281	6.81	12.01	Positive
plasmeyl-PE 36:1	730.5751	7.8	15.55	Positive



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plasmeyl-PE 36:2	728.5594	7.34	8.20	Positive
plasmeyl-PE 36:3	726.5438	6.93	10.52	Positive
plasmeyl-PE 36:4	724.5281	6.72	7.73	Positive
plasmeyl-PE 36:5	722.5125	6.39	20.46	Positive
plasmeyl-PE 38:3	754.5751	7.62	12.79	Positive
plasmeyl-PE 38:4	752.5594	7.39	8.24	Positive
plasmeyl-PE 38:5	750.5438	6.8	8.16	Positive
plasmeyl-PE 38:6	748.5281	6.65	8.60	Positive
plasmeyl-PE 40:4	780.5907	7.85	20.70	Positive
plasmeyl-PE 40:5	778.5751	7.44	16.31	Positive
plasmeyl-PE 40:6	776.5594	6.99	17.44	Positive
SM 21:0	523.3876	1.85	19.50	Positive
SM 21:1	521.3719	1.35	19.07	Positive
SM 30:1	647.5128	4.4	7.00	Positive
SM 31:1	661.5284	4.81	12.75	Positive
SM 32:0	677.5597	5.53	21.97	Positive
SM 32:1	675.5441	5.2	4.51	Positive
SM 32:2	673.5284	4.57	7.34	Positive
SM 33:0	691.5754	5.87	18.56	Positive
SM 33:1	689.5597	5.57	5.96	Positive
SM 33:2	687.5441	5.08	12.38	Positive
SM 34:0	705.5911	6.19	19.67	Positive
SM 34:1	703.5754	5.86	7.36	Positive
SM 34:2	701.5597	5.42	4.30	Positive
SM 35:0	719.6067	6.58	16.59	Positive
SM 35:1	717.5911	6.06	5.24	Positive
SM 35:2	715.5754	5.77	10.37	Positive
SM 36:0	733.6224	6.88	24.28	Positive
SM 36:1	731.6067	6.55	5.09	Positive
SM 36:2	729.5911	6.06	7.53	Positive
SM 37:1	745.6224	6.95	10.29	Positive
SM 37:2	743.6067	6.48	20.27	Positive
SM 38:1	759.638	7.29	5.03	Positive
SM 38:2	757.6224	6.76	6.48	Positive
SM 38:5	751.5754	6.17	13.11	Positive
SM 39:0	775.6693	7.81	15.84	Positive
SM 39:1	773.6536	7.58	6.82	Positive
SM 39:2	771.638	7.12	12.40	Positive



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SM 39:4	767.6067	6.69	21.00	Positive
SM 40:0	789.6849	8.08	10.86	Positive
SM 40:1	809.6513	7.87	8.84	Positive
SM 40:2	785.6536	7.35	5.18	Positive
SM 41:1	801.6849	8.09	6.58	Positive
SM 41:2	799.6693	7.66	7.30	Positive
SM 41:4	795.638	6.83	20.73	Positive
SM 41:5	793.6224	6.65	25.05	Positive
SM 42:0	839.6982	8.15	21.18	Positive
SM 42:1	815.7006	8.42	6.08	Positive
SM 42:2	813.6849	7.85	6.50	Positive
SM 42:4	809.6536	6.95	7.57	Positive
SM 42:5	807.638	6.62	15.61	Positive
SM 43:1	829.7163	8.63	10.91	Positive
SM 43:2	827.7006	8.1	8.40	Positive
SM 44:1	843.7319	8.93	22.66	Positive
SM 44:2	841.7163	8.42	12.76	Positive
TG 40:0	717.6005	9.51	14.52	Positive
TG 40:1	710.6295	9.26	10.50	Positive
TG 42:0	745.6318	9.83	14.67	Positive
TG 42:1	738.6608	9.53	9.62	Positive
TG 42:2	736.6451	9.27	10.18	Positive
TG 44:1	766.6921	9.85	12.32	Positive
TG 44:2	764.6764	9.59	11.11	Positive
TG 46:0	796.739	10.33	12.24	Positive
TG 46:1	794.7233	10.14	9.96	Positive
TG 46:2	792.7077	9.88	12.42	Positive
TG 46:3	790.6921	9.65	13.43	Positive
TG 48:0	829.7257	10.45	20.11	Positive
TG 48:1	827.71	10.33	9.90	Positive
TG 48:2	820.739	10.16	8.07	Positive
TG 48:3	818.7233	9.93	10.66	Positive
TG 49:0	838.7859	10.72	17.26	Positive
TG 49:1	836.7702	10.51	8.77	Positive
TG 49:2	834.7546	10.31	9.48	Positive
TG 49:3	832.739	10.1	10.96	Positive
TG 49:4	830.7233	9.89	19.07	Positive
TG 50:1	855.7413	10.28	12.54	Positive



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TG 50:2	853.7257	10.1	9.76	Positive
TG 50:3	846.7546	10.18	10.17	Positive
TG 50:4	844.739	9.98	7.99	Positive
TG 50:5	842.7233	9.81	10.53	Positive
TG 51:1	864.8015	10.73	11.10	Positive
TG 51:2	862.7859	10.5	7.41	Positive
TG 51:3	860.7702	10.34	8.69	Positive
TG 51:4	858.7546	10.17	10.45	Positive
TG 52:1	883.7726	10.58	12.57	Positive
TG 52:2	881.7569	10.33	10.00	Positive
TG 52:3	879.7413	10.35	8.68	Positive
TG 52:4	872.7702	10.23	10.52	Positive
TG 52:5	875.71	10.07	9.71	Positive
TG 52:6	868.739	9.87	10.85	Positive
TG 52:7	866.7233	9.7	11.46	Positive
TG 53:1	892.8328	10.98	13.28	Positive
TG 53:2	890.8172	10.8	12.60	Positive
TG 53:3	888.8015	10.54	8.34	Positive
TG 53:4	886.7859	10.39	10.80	Positive
TG 53:5	884.7702	10.21	20.54	Positive
TG 53:6	882.7546	10.04	18.27	Positive
TG 54:1	911.8038	11.15	13.43	Positive
TG 54:2	904.8328	10.81	9.40	Positive
TG 54:3	902.8172	10.66	9.27	Positive
TG 54:4	900.8015	10.48	8.48	Positive
TG 54:5	898.7859	10.28	9.80	Positive
TG 54:6	901.7257	10.1	9.96	Positive
TG 54:7	894.7546	9.94	9.43	Positive
TG 54:8	892.739	9.76	9.03	Positive
TG 54:9	890.7233	9.54	14.95	Positive
TG 55:4	914.8172	10.62	20.82	Positive
TG 55:5	912.8015	10.5	22.33	Positive
TG 55:6	910.7859	10.32	17.13	Positive
TG 55:9	904.739	9.83	8.08	Positive
TG 56:1	934.8797	11.35	15.49	Positive
TG 56:10	916.739	9.72	15.37	Positive
TG 56:2	932.8641	11.11	10.78	Positive
TG 56:3	930.8484	10.93	10.37	Positive





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TG 56:4	928.8328	10.76	11.26	Positive
TG 56:5	931.7726	10.62	16.14	Positive
TG 56:6	924.8015	10.43	8.13	Positive
TG 56:7	922.7859	10.26	7.15	Positive
TG 56:8	920.7702	10.08	7.95	Positive
TG 56:9	918.7546	9.9	9.65	Positive
TG 57:9	932.7702	10.1	20.23	Positive
TG 58:1	962.911	11.63	23.52	Positive
TG 58:10	944.7702	10.03	10.47	Positive
TG 58:11	942.7546	9.85	11.60	Positive
TG 58:12	940.739	9.66	14.90	Positive
TG 58:2	960.8954	11.3	10.25	Positive
TG 58:3	958.8797	11.22	12.42	Positive
TG 58:4	956.8641	10.98	16.25	Positive
TG 58:5	954.8484	10.85	14.74	Positive
TG 58:6	952.8328	10.63	12.42	Positive
TG 58:7	950.8172	10.51	8.70	Positive
TG 58:8	948.8015	10.35	10.32	Positive
TG 58:9	946.7859	10.2	10.53	Positive
TG 59:2	974.911	11.53	24.57	Positive
TG 59:3	972.8954	11.31	23.91	Positive
TG 60:1	990.9423	11.62	19.87	Positive
TG 60:10	972.8015	10.23	16.87	Positive
TG 60:11	970.7859	10.12	16.48	Positive
TG 60:12	968.7702	9.96	15.75	Positive
TG 60:2	988.9267	11.66	15.89	Positive
TG 60:3	986.911	11.37	12.37	Positive
TG 60:4	984.8954	11.24	18.01	Positive
TG 60:9	974.8172	10.42	19.68	Positive
TG 62:1	1018.9736	12.27	22.66	Positive
TG 62:2	1016.9579	11.98	24.73	Positive
TG 62:3	1014.9423	11.73	22.67	Positive
TG 62:4	1012.9267	11.47	24.31	Positive
CerP 21:0	436.2828	2.06	15.51	Negative
CL 70:4	713.4939	6	16.58	Negative
CL 74:1	744.5487	6.87	10.55	Negative
CL 74:4	741.5252	6.45	9.92	Negative
CL 78:4	769.5565	6.86	22.34	Negative



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CL 78:5	768.5487	6.57	14.75	Negative
CL 78:7	766.5331	6.59	14.01	Negative
CL 82:15	786.5018	6.01	24.16	Negative
IS PC 34:0	820.6073	7.3	5.99	Negative
IS PE 34:0	718.5392	7.31	8.51	Negative
IS PG 34:0	749.5333	6.31	9.82	Negative
IS PI 37:4	871.5342	5.62	15.15	Negative
IS PS 34:0	762.5291	6.02	19.26	Negative
lysoPE 16:0	452.2777	1.72	9.87	Negative
lysoPE 18:0	480.309	2.49	7.32	Negative
lysoPE 18:1	478.2934	1.9	7.26	Negative
lysoPE 18:2	476.2777	1.41	8.06	Negative
lysoPE 20:3	502.2934	1.69	15.80	Negative
lysoPE 20:4	500.2777	1.39	6.18	Negative
lysoPE 22:5	526.2934	1.66	14.62	Negative
lysoPE 22:6	524.2777	1.36	10.97	Negative
PA 20:2	475.2461	0.78	22.58	Negative
PA 28:3	585.3556	0.72	23.51	Negative
PA 33:2	657.4495	1.95	23.53	Negative
PA 39:2	741.5434	6.59	18.98	Negative
PC 30:0	764.5442	6.11	17.86	Negative
PC 32:0	792.5754	6.71	9.92	Negative
PC 32:1	790.5598	6.21	10.10	Negative
PC 32:2	788.5442	5.72	6.86	Negative
PC 33:1	804.5754	6.65	17.86	Negative
PC 33:2	802.5598	6.09	17.54	Negative
PC 34:1	818.5911	6.76	4.55	Negative
PC 34:2	816.5754	6.32	4.97	Negative
PC 34:3	814.5598	5.84	9.68	Negative
PC 34:3	814.5598	6.15	9.68	Negative
PC 34:4	812.5442	5.64	9.85	Negative
PC 35:1	832.6068	7.1	24.05	Negative
PC 35:1	832.6068	7.33	24.05	Negative
PC 35:2	830.5911	6.75	16.10	Negative
PC 36:0	848.6381	7.93	25.35	Negative
PC 36:1	846.6224	7.42	4.21	Negative
PC 36:2	844.6068	6.35	15.31	Negative
PC 36:2	844.6068	6.97	4.04	Negative



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PC 36:3	842.5911	6.51	3.95	Negative
PC 36:4	840.5754	6.2	10.64	Negative
PC 36:5	838.5598	5.77	5.93	Negative
PC 36:6	836.5442	5.53	13.28	Negative
PC 37:2	858.6224	7.32	17.63	Negative
PC 37:4	854.5911	6.74	25.31	Negative
PC 37:6	850.5598	5.91	21.93	Negative
PC 38:2	872.6381	7.56	10.17	Negative
PC 38:2	872.6381	7.64	10.17	Negative
PC 38:3	870.6224	7.2	10.07	Negative
PC 38:4	868.6068	6.86	5.08	Negative
PC 38:5	866.5911	6.44	5.11	Negative
PC 38:6	864.5754	6.13	7.09	Negative
PC 38:7	862.5598	5.63	15.59	Negative
PC 39:4	882.6224	7.26	21.99	Negative
PC 40:4	896.6381	7.43	11.02	Negative
PC 40:5	894.6224	7.16	8.68	Negative
PC 40:6	892.6068	6.77	8.12	Negative
PC 40:7	890.5911	6.35	13.19	Negative
PC 40:8	888.5754	5.83	19.31	Negative
PE 34:1	716.5231	6.92	9.10	Negative
PE 34:2	714.5074	6.45	8.83	Negative
PE 34:3	712.4917	6.11	12.55	Negative
PE 35:2	728.5231	6.7	21.68	Negative
PE 36:0	746.57	7.92	21.04	Negative
PE 36:1	744.5543	6.85	15.46	Negative
PE 36:1	744.5543	7.51	10.22	Negative
PE 36:2	742.5387	6.39	23.89	Negative
PE 36:2	742.5387	7.08	8.10	Negative
PE 36:3	740.5231	6.58	7.92	Negative
PE 36:4	738.5074	6.26	7.41	Negative
PE 36:5	736.4917	6.1	14.88	Negative
PE 38:2	770.57	6.98	24.54	Negative
PE 38:3	768.5543	7.31	18.96	Negative
PE 38:4	766.5387	7	8.01	Negative
PE 38:5	764.5231	6.57	9.58	Negative
PE 38:6	762.5074	6.22	20.87	Negative
PE 39:6	776.5231	6.56	24.93	Negative



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PE 40:4	794.57	7.41	25.58	Negative
PE 40:5	792.5543	7.14	20.43	Negative
PE 40:6	790.5387	6.97	10.73	Negative
PE 40:7	788.5231	6.47	12.24	Negative
PE 40:8	786.5074	6.05	16.60	Negative
PG 36:2	773.5333	6.11	15.29	Negative
PI 34:1	835.5337	5.73	19.10	Negative
PI 34:2	833.518	5.28	17.65	Negative
PI 36:2	861.5493	5.92	13.89	Negative
PI 36:3	859.5337	5.44	15.88	Negative
PI 36:4	857.518	5.28	14.68	Negative
PI 38:3	887.5649	6.11	13.64	Negative
PI 38:4	885.5493	5.9	11.16	Negative
PI 38:5	883.5337	5.41	15.30	Negative
PI 40:5	911.5649	6.09	22.28	Negative
plasmeyl-PE 32:0	674.5124	7.06	14.33	Negative
plasmeyl-PE 34:1	700.5281	7.23	10.06	Negative
plasmeyl-PE 34:2	698.5124	6.84	12.47	Negative
plasmeyl-PE 34:3	696.4968	6.42	22.55	Negative
plasmeyl-PE 36:1	728.5594	7.8	11.27	Negative
plasmeyl-PE 36:2	726.5438	7.4	7.93	Negative
plasmeyl-PE 36:3	724.5281	6.98	7.38	Negative
plasmeyl-PE 36:4	722.5124	6.7	15.86	Negative
plasmeyl-PE 36:5	720.4968	6.39	7.95	Negative
plasmeyl-PE 38:2	754.5751	7.96	20.08	Negative
plasmeyl-PE 38:3	752.5594	7.55	8.50	Negative
plasmeyl-PE 38:4	750.5438	7.34	10.03	Negative
plasmeyl-PE 38:5	748.5281	6.85	7.65	Negative
plasmeyl-PE 38:6	746.5124	6.62	8.28	Negative
plasmeyl-PE 40:3	780.5907	8.17	17.15	Negative
plasmeyl-PE 40:4	778.5751	7.82	15.10	Negative
plasmeyl-PE 40:5	776.5594	7.4	10.00	Negative
plasmeyl-PE 40:6	774.5438	7.24	16.75	Negative
plasmeyl-PE 42:5	804.5907	7.94	25.02	Negative