

**Supplementary Information**

**New Immunosuppressive Sphingoid Base and Ceramide Analogues in Wild Cordyceps**

**Jia-Ning Mi, Yuwei Han, Yingqiong Xu, Junping Kou, Jing-Rong Wang and Zhi-Hong Jiang**

**Table S1.** 346 SPLs identified including 171 new SPLs (bolded) from wild Cordyceps by using UHPLC-UHD-Q-TOF-MS/MS.

No.	Name	Formula	RT	Score	Diff (ppm)	Theoretical [M+H] <sup>+</sup> (m/z)	[M+H] <sup>+</sup> (m/z)	MS/MS fragment (m/z)
1	Sa (d14:0)	C14 H31 N O2	4.99	82.86	0.02	246.2428	246.2430	228.2321, 60.0443
2	So (d14:1)	C14 H29 N O2	4.40	80.77	-2.03	244.2271	244.2275	226.2196, 60.0436
3	So (d14:2)	C14 H27 N O2	3.25	85.66	-1.93	242.2115	242.2115	224.2015, 206.1881, 60.0440
4	So (d14:3)	C14 H25 N O2	2.10	65.07	-0.18	240.1958	240.1958	222.1917, 60.0445
5	So (d15:1)	C15 H31 N O2	6.70	68.91	-1.77	258.2428	258.2429	240.2321, 222.1492
6	So (d16:1)	C16 H33 N O2	7.05	64.91	-2.12	272.2584	272.2585	254.2504, 60.0420
7	Sa (d17:0)	C17 H37 N O2	5.15	99.28	0.80	288.2897	288.2900	270.2799
8	Sa (d18:0)	C18 H39 N O2	6.97	79.10	-2.56	302.3054	302.3052	284.2957, 266.2838, 254.278, 60.0445
9	So (d18:1)	C18 H37 N O2	6.60	90.13	-3.23	300.2897	300.2890	282.2510, 264.2360, 60.0441
<b>10</b>	<b>So (d18:5) *</b>	<b>C18 H29 N O2</b>	<b>2.67</b>	<b>97.56</b>	<b>-0.36</b>	<b>292.2271</b>	<b>292.2272</b>	<b>274.2159, 256.2152</b>
11	So (d19:1)	C19 H39 N O2	8.25	74.08	-1.60	314.3054	314.3049	296.2948, 60.0438
12	So (d19:2)	C19 H37 N O2	6.64	97.44	0.76	312.2897	312.2899	294.2788, 276.2700, 264.2691, 60.0445
13	So (d20:2)	C20 H39 N O2	7.52	76.00	-1.98	326.3054	326.3052	308.2914, 290.2954, 60.0443
<b>14</b>	<b>So (d20:3)</b>	<b>C20 H37 N O2</b>	<b>7.79</b>	<b>97.21</b>	<b>0.44</b>	<b>324.2897</b>	<b>324.2899</b>	<b>306.2820, 60.0418</b>
15	So (d22:1)	C22 H45 N O2	10.64	86.20	-3.88	356.3523	356.3515	338.3456
16	So (d22:1) isomer	C22 H45 N O2	10.17	82.52	-2.07	356.3523	356.3517	338.3203
17	So (d22:2)	C22 H43 N O2	8.60	96.71	0.03	354.3367	354.3366	336.3258
18	So (d22:3)	C22 H41 N O2	7.67	91.82	0.24	352.3210	352.3209	334.3107, 316.3009, 60.0445
<b>19</b>	<b>So (d22:5)</b>	<b>C22 H37 N O2</b>	<b>6.92</b>	<b>63.69</b>	<b>-4.81</b>	<b>348.2897</b>	<b>348.2878</b>	<b>330.2419, 60.0445</b>

<b>20</b>	<b>So (t15:2)</b>	<b>C15 H29 N O3</b>	<b>3.59</b>	<b>98.64</b>	<b>-0.37</b>	<b>272.2220</b>	<b>272.2220</b>	<b>254.1970, 60.0445</b>
<b>21</b>	<b>So (t15:3)</b>	<b>C15 H27 N O3</b>	<b>2.97</b>	<b>72.86</b>	<b>-0.61</b>	<b>270.2064</b>	<b>270.2065</b>	<b>252.1951</b>
22	Sa (t16:0)	C16 H35 N O3	5.12	85.55	-0.02	290.2691	290.2689	272.2527, 254.2401, 236.1139, 242.2471, 60.0438
23	Sa (t18:0)	C18 H39 N O3	6.67	97.40	0.92	318.3003	318.3006	300.2891, 282.2786, 264.2682, 60.0444
24	So (t18:1)	C18 H37 N O3	6.40	97.11	0.52	316.2846	316.2848	298.2741, 280.2635, 262.2529, 250.2535, 60.0445
25	So (t18:2)	C18 H35 N O3	6.87	84.21	1.80	314.2690	314.2697	296.2599, 278.2532, 60.0443
26	So (t19:1)	C19 H39 N O3	7.32	98.97	0.06	330.3003	330.3004	312.2897, 294.2783, 60.0446
<b>27</b>	<b>So (t19:2)</b>	<b>C19 H37 N O3</b>	<b>6.90</b>	<b>98.38</b>	<b>-0.29</b>	<b>328.2846</b>	<b>328.2845</b>	<b>310.2738, 298.2743, 292.2637, 280.2638, 274.2572, 262.2534, 60.0444</b>
28	So (t20:1)	C20 H41 N O3	7.29	69.92	-2.16	344.3159	344.3154	326.2834, 308.2549, 60.0445
<b>29</b>	<b>So (t21:3)</b>	<b>C21 H39 N O3</b>	<b>9.25</b>	<b>88.05</b>	<b>-2.07</b>	<b>354.3003</b>	<b>354.3002</b>	<b>336.2901</b>
<b>30</b>	<b>So (t21:4)</b>	<b>C21 H37 N O3</b>	<b>7.94</b>	<b>72.60</b>	<b>1.27</b>	<b>352.2846</b>	<b>352.2853</b>	<b>334.2744, 316.2596</b>
31	Sa (t22:0)	C22 H47 N O3	8.02	98.41	-1.43	374.3629	374.3624	356.3153, 338.3074, 320.2462
32	So (t22:1)	C22 H45 N O3	8.10	75.99	-2.15	372.3472	372.3466	354.3018, 336.3284
33	So (t22:2)	C22 H43 N O3	7.59	63.48	-2.94	370.3316	370.3312	352.2858, 334.2853, 316.2329, 60.0444
34	So (t23:4)	C23 H41 N O3	9.50	74.92	1.12	380.3159	380.3161	362.3060
35	So (m14:3)	C14 H25 N O	3.72	84.63	-0.95	224.2009	224.2014	206.1902
36	Sa (m17:0)	C17 H37 N O	6.74	86.06	1.37	272.2948	272.2952	254.2502
37	Sa (m18:0)	C18 H39 N O	7.20	98.31	-1.73	286.3104	286.3110	268.2989
38	So (m18:1)	C18 H37 N O	6.95	83.22	0.68	284.2948	284.2948	266.2868
<b>39</b>	<b>So (m22:1)</b>	<b>C22 H45 N O</b>	<b>11.12</b>	<b>96.58</b>	<b>0.53</b>	<b>340.3574</b>	<b>340.3577</b>	<b>322.3447</b>
<b>40</b>	<b>So (m22:2)</b>	<b>C22 H43 N O</b>	<b>9.47</b>	<b>99.21</b>	<b>-0.76</b>	<b>338.3417</b>	<b>338.3416</b>	<b>320.3321</b>
<b>41</b>	<b>So (m22:3)</b>	<b>C22 H41 N O</b>	<b>7.60</b>	<b>98.61</b>	<b>0.64</b>	<b>336.3261</b>	<b>336.3263</b>	<b>318.3153</b>
<b>42</b>	<b>So (m22:3) isomer</b>	<b>C22 H41 N O</b>	<b>9.92</b>	<b>84.94</b>	<b>0.03</b>	<b>336.3261</b>	<b>336.3261</b>	<b>318.3134</b>

43	Sphingofungin A	C21 H41 N3 O6	9.34	89.37	-1.50	432.3068	432.3064	414.3447, 396.3327, 378.3281
44	<b>Cer (m14:2/18:2)</b>	<b>C32 H57 N O2</b>	<b>10.78</b>	<b>88.80</b>	<b>-3.12</b>	<b>488.4462</b>	<b>488.4452</b>	<b>470.3669, 226.2164, 208.2063, 196.2068, 44.0482</b>
45	<b>Cer (m14:3/18:2)</b>	<b>C32 H55 N O2</b>	<b>10.52</b>	<b>95.97</b>	<b>-0.47</b>	<b>486.4306</b>	<b>486.4305</b>	<b>468.4108, 224.2015, 206.1907, 194.1904, 44.0483</b>
46	<b>Cer (m14:3/18:2) isomer</b>	<b>C32 H55 N O2</b>	<b>9.27</b>	<b>79.44</b>	<b>-5.25</b>	<b>486.4306</b>	<b>486.4282</b>	<b>468.3868, 206.1906</b>
47	<b>Cer (m14:3/24:1)</b>	<b>C38 H69 N O2</b>	<b>14.27</b>	<b>96.33</b>	<b>-1.41</b>	<b>572.5401</b>	<b>572.5395</b>	<b>554.5282, 224.2013, 206.1909, 194.1909, 44.0484</b>
48	<b>Cer (m15:1/5:0)</b>	<b>C20 H39 N O2</b>	<b>8.55</b>	<b>99.05</b>	<b>1.22</b>	<b>326.3054</b>	<b>326.3058</b>	<b>308.2948, 224.2011</b>
49	<b>Cer (m15:2/18:2)</b>	<b>C33 H59 N O2</b>	<b>11.68</b>	<b>98.70</b>	<b>1.10</b>	<b>502.4619</b>	<b>502.4613</b>	<b>484.4546, 240.2323, 222.2219, 210.2215, 44.0483</b>
50	<b>Cer (m15:3/18:1)</b>	<b>C33 H59 N O2</b>	<b>11.40</b>	<b>90.67</b>	<b>-1.07</b>	<b>502.4619</b>	<b>502.4617</b>	<b>484.4170, 238.2164, 220.2065, 208.2060, 44.0482</b>
51	<b>Cer (m16:3/18:1)</b>	<b>C34 H61 N O2</b>	<b>11.88</b>	<b>86.43</b>	<b>-3.35</b>	<b>516.4775</b>	<b>516.4757</b>	<b>498.4709, 252.2318, 234.2216, 222.2223, 44.0483</b>
52	<b>Cer (m16:3/22:1)</b>	<b>C38 H69 N O2</b>	<b>14.68</b>	<b>76.67</b>	<b>1.40</b>	<b>572.5401</b>	<b>572.5403</b>	<b>554.5358, 252.2135, 234.2220, 222.2222, 44.0483</b>
53	<b>Cer (m18:2/3:0)</b>	<b>C21 H39 N O2</b>	<b>7.82</b>	<b>99.01</b>	<b>-0.02</b>	<b>338.3054</b>	<b>338.3050</b>	<b>264.2679</b>
54	<b>Cer (m18:2/19:0)</b>	<b>C37 H71 N O2</b>	<b>15.28</b>	<b>95.01</b>	<b>-0.75</b>	<b>562.5558</b>	<b>562.5555</b>	<b>544.5445, 282.2789, 264.2681, 252.2704, 44.0484</b>
55	<b>Cer (m18:3/18:1)</b>	<b>C36 H65 N O2</b>	<b>12.98</b>	<b>97.15</b>	<b>-0.21</b>	<b>544.5088</b>	<b>544.5088</b>	<b>526.4965, 280.2627, 262.2525, 250.2529, 44.0483</b>
56	<b>Cer (m18:3/18:2)</b>	<b>C36 H63 N O2</b>	<b>12.22</b>	<b>94.15</b>	<b>-0.39</b>	<b>542.4932</b>	<b>542.4931</b>	<b>524.4831, 280.2628, 262.2521, 250.2531, 44.0483</b>
57	<b>Cer (m18:5/5:0)</b>	<b>C23 H37 N O2</b>	<b>7.53</b>	<b>99.45</b>	<b>0.87</b>	<b>360.2897</b>	<b>360.2900</b>	<b>342.2793, 258.2229</b>
58	<b>Cer (m19:4/16:0)</b>	<b>C35 H63 N O2</b>	<b>10.78</b>	<b>97.11</b>	<b>-1.79</b>	<b>530.4932</b>	<b>530.4923</b>	<b>512.4818, 292.2627, 274.2528, 262.2527, 44.0482</b>
59	<b>Cer (m19:3/17:0)</b>	<b>C35 H65 N O2</b>	<b>13.43</b>	<b>95.84</b>	<b>-0.78</b>	<b>532.5088</b>	<b>532.5093</b>	<b>514.4972, 294.2784, 276.2681, 264.2681, 44.0483</b>
60	<b>Cer (d14:0/16:0)</b>	<b>C30 H61 N O3</b>	11.25	93.31	1.77	484.4724	484.4710	466.4612, 448.4499, 246.2411, 228.2317, 210.2203, 198.2203
61	<b>Cer (d14:0/18:0)</b>	<b>C32 H65 N O3</b>	12.47	96.42	-1.61	512.5037	512.5031	494.4912, 476.4834, 246.2453, 228.2326, 210.2220, 198.2216, 60.0445
62	<b>Cer (d14:0/18:1)</b>	<b>C32 H63 N O3</b>	<b>11.67</b>	<b>84.13</b>	<b>-3.03</b>	<b>510.4881</b>	<b>510.4865</b>	<b>492.4745, 474.4684, 462.3501, 246.2431, 228.2322, 210.2218, 198.2218, 60.0444</b>
63	<b>Cer (d14:0/20:0)</b>	<b>C34 H69 N O3</b>	13.68	98.35	-0.79	540.5350	540.5453	522.5236, 504.5230, 246.2427, 228.2325, 210.2221, 198.2220, 60.0445
64	<b>Cer (d14:0/22:0)</b>	<b>C36 H73 N O3</b>	<b>15.08</b>	<b>99.04</b>	<b>-0.34</b>	<b>568.5663</b>	<b>568.5661</b>	<b>550.5549, 532.5438, 246.2438, 228.2325, 210.2220, 198.2221, 60.0444</b>

<b>65</b>	<b>Cer (d14:0/23:0)</b>	<b>C37 H75 N O3</b>	<b>15.77</b>	<b>95.74</b>	<b>-1.36</b>	<b>582.5820</b>	<b>582.5813</b>	<b>564.5697, 546.5581, 246.2430, 228.2323, 210.2217, 198.2223, 60.0444</b>
66	Cer (d14:0/24:0)	C38 H77 N O3	16.38	96.05	-0.79	596.5976	596.5982	578.5862, 560.5761, 246.2435, 228.2324, 210.2222, 198.2221, 60.0444
67	Cer (d16:0/20:0)	C36 H73 N O3	15.06	98.41	-1.11	568.5663	568.5669	550.5550, 532.5435, 520.5305, 274.2729, 256.2626, 238.2517, 226.2522, 60.0439
<b>68</b>	<b>Cer (d16:0/22:0)</b>	<b>C38 H77 N O3</b>	<b>16.40</b>	<b>97.75</b>	<b>-0.80</b>	<b>596.5976</b>	<b>596.5973</b>	<b>578.5862, 560.5761, 274.2731, 256.2637, 238.2533, 226.253, 60.0444</b>
<b>69</b>	<b>Cer (d16:0/23:0)</b>	<b>C39 H79 N O3</b>	<b>17.02</b>	<b>89.50</b>	<b>-2.81</b>	<b>610.6133</b>	<b>610.6120</b>	<b>592.6018, 574.5929, 274.2718, 256.2638, 238.2528, 226.2522, 60.0444</b>
70	Cer (d18:0/16:0)	C34 H69 N O3	13.50	98.72	-0.27	540.5350	540.5349	522.5236, 504.5130, 302.3046, 284.2944, 266.2841, 254.2839, 60.0445
71	Cer (d18:0/17:0)	C35 H71 N O3	14.30	63.16	7.99	554.5507	554.5472	536.5386, 518.5276, 302.3016, 284.2929, 266.2833, 60.0438
72	Cer (d18:0/18:0)	C36 H73 N O3	15.00	98.27	-1.19	568.5663	568.5669	550.5544, 532.5438, 302.3084, 284.2946, 266.2841, 254.2842, 60.0444
73	Cer (d18:0/18:1)	C36 H71 N O3	14.85	95.87	-0.83	566.5507	566.5511	302.3084, 284.2948, 266.2843, 254.2842, 60.0445
74	Cer (d18:0/18:2)	C36 H69 N O3	13.98	65.50	-2.34	564.5350	564.5348	546.5240, 528.5161, 516.5123, 284.2947, 266.2841, 254.2837, 60.0444
75	Cer (d18:0/20:0)	C38 H77 N O3	16.60	96.69	-0.81	596.5976	596.5982	578.5863, 560.5765, 302.3031, 284.2945, 266.2836, 60.0437
76	Cer (d18:0/22:0) isomer	C40 H81 N O3	17.72	95.99	-2.10	624.6289	624.6277	606.6163, 588.6055, 302.3052, 284.2949, 266.2838, 254.2844, 60.0444
77	Cer (d18:0/22:0)	C40 H81 N O3	17.97	89.99	-3.09	624.6289	624.6275	606.6174, 588.6058, 302.3078, 284.2948, 266.2840, 254.2833, 60.0444
78	Cer (d18:0/23:0)	C41 H83 N O3	18.55	85.94	-3.16	638.6446	638.6433	620.6329, 602.6228, 302.3032, 284.2955, 266.2831, 254.2871, 60.0444
79	Cer (d18:0/24:0)	C42 H85 N O3	19.40	92.59	-2.90	652.6602	652.6588	634.6487, 616.6352, 302.3084, 284.2948, 266.2841, 254.2843, 60.0445
80	Cer (d18:0/24:1)	C42 H83 N O3	17.96	89.09	-0.90	650.6446	650.6431	632.6302, 614.6142, 302.3016, 284.2921, 266.2827, 254.2727, 60.0439
81	Cer (d18:0/25:0)	C43 H87 N O3	20.20	88.62	-3.50	666.6759	666.6737	648.6634, 630.6514, 302.3073, 284.2943, 266.2824, 254.2831, 60.0444
82	Cer (d18:0/26:0)	C44 H89 N O3	21.00	90.71	-2.91	680.6915	680.6901	662.6796, 644.6697, 302.3083, 284.2947, 266.2844, 254.2847, 60.0444
<b>83</b>	<b>Cer (d20:0/25:0)</b>	<b>C45 H91 N O3</b>	<b>21.84</b>	<b>82.72</b>	<b>-3.64</b>	<b>694.7072</b>	<b>694.7056</b>	<b>676.6960, 658.6845, 330.3371, 312.3255, 294.3154, 282.3139, 60.0445</b>
84	Cer (d20:0/26:0)	C46 H93 N O3	22.40	91.72	-2.57	708.7228	708.7216	690.7108, 672.6992, 660.6947, 330.3376, 312.3259, 294.3168, 282.3158, 60.0444
<b>85</b>	<b>Cer (d22:0/25:0)</b>	<b>C47 H95 N O3</b>	<b>22.90</b>	<b>87.17</b>	<b>-3.46</b>	<b>722.7385</b>	<b>722.7365</b>	<b>704.7256, 686.7147, 358.3704, 340.3566, 322.3473, 310.3485, 60.0445</b>

86	Cer (d22:0/26:0)	C48 H97 N O3	23.29	94.06	-2.63	736.7541	736.7526	718.7423, 700.7305, 358.3706, 340.3573, 322.3466, 60.0444
87	Cer (d24:0/26:0)	C50 H101 N O3	24.22	83.57	-1.74	764.7854	764.7829	746.7729, 728.7612, 396.4187, 386.4028, 368.3890, 350.3746, 338.3770, 60.0444
88	Cer (d25:0/24:0)	C49 H99 N O3	23.75	88.87	-3.37	750.7698	750.7671	732.7573, 714.7453, 382.4034, 364.3927, 352.3752, 60.0442
89	Cer (d18:0/16:0(OH))	C34 H69 N O4	13.17	70.07	-2.68	556.5299	556.5290	538.5192, 520.5085, 502.4947, 490.4969, 302.3046, 284.2952, 266.2845, 254.2844, 60.0444
90	Cer (d18:0/20:0(OH))	C38 H77 N O4	15.75	64.18	-4.15	612.5925	612.5923	594.5814, 576.5713, 558.5542, 302.3026, 284.2956, 266.2837, 254.2809, 60.0444
91	Cer (d18:0/24:0(OH))	C42 H85 N O4	18.57	93.69	-1.60	668.6551	668.6543	650.6424, 632.6333, 614.6246, 602.6232, 302.3037, 284.2948, 266.2842, 254.284, 60.0444
92	Cer (d20:0/26:0(OH))	C46 H93 N O4	21.87	86.66	-2.04	724.7177	724.7167	706.7041, 688.6884, 312.3260, 294.3125, 60.0446
93	Cer (d22:0/25:0(OH))	C47 H95 N O4	22.40	81.20	-3.67	738.7334	738.7309	720.7174, 702.7103, 684.5929, 340.3558, 322.3416, 310.3420, 60.044
94	Cer (t14:0/14:0)	C28 H57 N O4	9.32	97.85	-1.34	472.4360	472.4356	454.3674, 436.3568, 208.2068, 60.0443
95	Cer (t18:0/16:0)	C34 H69 N O4	12.48	96.83	2.11	556.5299	556.5288	538.5185, 520.5069, 318.2989, 300.2874, 282.2780, 264.2680, 252.2713, 60.0438
96	Cer (t18:0/16:1)	C34 H67 N O4	12.66	74.58	-1.17	554.5143	554.5137	536.5047, 518.4890, 318.3003, 300.2896, 282.2795, 264.2687, 252.2690, 60.0445
97	Cer (t18:0/17:0)	C35 H71 N O4	13.11	73.70	1.17	570.5456	570.5451	552.5263, 534.5221, 318.3001, 300.2903, 282.2794, 264.2681, 252.2698, 60.0445
98	Cer (t18:0/17:1)	C35 H69 N O4	13.20	72.43	1.82	568.5299	568.5300	550.5195, 532.5077, 514.4987, 502.4990, 318.2974, 300.2925, 282.2794, 264.2682, 252.2678, 60.0444
99	Cer (t18:0/18:0)	C36 H73 N O4	13.75	98.04	-0.38	584.5612	584.5611	566.5493, 548.5379, 530.5316, 518.5301, 318.3004, 300.2895, 282.2794, 264.2686, 252.2691, 60.0445

100	Cer (t18:0/18:1)	C36 H71 N O4	13.94	80.22	0.11	582.5456	582.5456	564.5340, 546.5215, 528.5087, 318.3002, 300.2893, 282.2791, 264.2685, 252.2687, 60.0444
101	Cer (t18:0/18:2)	C36 H69 N O4	12.15	96.38	2.16	580.5299	580.5287	562.5163, 544.5061, 526.4970, 318.2994, 300.2886, 282.2788, 264.2679, 252.2683, 60.0439
<b>102</b>	<b>Cer (t18:0/19:1)</b>	<b>C37 H73 N O4</b>	<b>14.46</b>	<b>72.71</b>	<b>-1.24</b>	<b>596.5612</b>	<b>596.5607</b>	<b>578.5343, 560.5363, 542.4854, 318.3007, 300.2921, 282.2795, 264.2686, 252.2690, 60.0446</b>
103	Cer (t18:0/20:0)	C38 H77 N O4	15.10	95.07	-0.50	612.5925	612.5923	594.5811, 576.5722, 558.5618, 318.3011, 300.2898, 282.2791, 264.2686, 252.2689, 60.0445
104	Cer (t18:0/20:1)	C38 H75 N O4	15.10	80.53	-3.03	610.5769	610.5751	592.5672, 574.5573, 318.2991, 300.2888, 282.2785, 264.2679, 252.2692, 60.0438
105	Cer (t18:0/21:0)	C39 H79 N O4	15.77	95.31	-1.10	626.6082	626.6077	608.5954, 590.5868, 572.5736, 560.5743, 318.3002, 300.2892, 282.2791, 264.2684, 252.2689, 60.0444
<b>106</b>	<b>Cer (t18:0/21:1)</b>	<b>C39 H77 N O4</b>	<b>15.70</b>	<b>75.08</b>	<b>-1.99</b>	<b>624.5925</b>	<b>624.5938</b>	<b>606.5831, 588.5529, 570.4213, 318.3005, 300.2898, 282.2793, 264.2687, 252.2690, 60.0445</b>
107	Cer (t18:0/22:0)	C40 H81 N O4	16.43	99.02	0.03	640.6238	640.6238	622.6119, 604.6010, 586.5907, 574.5893, 318.3004, 300.2897, 282.2795, 264.2687, 252.2691, 60.0445
108	Cer (t18:0/22:1)	C40 H79 N O4	16.30	87.99	0.88	638.6082	638.6060	620.5993, 602.5904, 318.3001, 300.2894, 282.2794, 264.2686, 252.2690, 60.0445
109	Cer (t18:0/23:0)	C41 H83 N O4	17.25	98.64	-0.15	654.6395	654.6395	636.6284, 618.6171, 600.6059, 318.3009, 300.2895, 282.2797, 264.2688, 252.2691, 60.0445
110	Cer (t18:0/23:1)	C41 H81 N O4	17.00	80.56	1.78	652.6238	652.6233	634.6136, 616.5993, 598.5534, 318.2992, 300.2883, 282.2796, 264.2685, 252.2680, 60.0439
111	Cer (t18:0/24:0)	C42 H85 N O4	17.85	98.59	-0.31	668.6551	668.6549	650.6435, 632.6327, 614.6206, 602.6235, 318.3003, 300.2897,

								282.2796, 264.2688, 252.2688, 60.0445
112 Cer (t18:0/24:1)	C42 H83 N O4	17.40	70.87	1.23	666.6395	666.6383	648.6237, 630.6147, 318.2999, 300.2893, 282.2791, 264.2683, 252.2688, 60.0444	
<b>113 Cer (t18:0/24:2)</b>	<b>C42 H81 N O4</b>	<b>15.68</b>	<b>90.97</b>	<b>2.65</b>	<b>664.6238</b>	<b>664.6221</b>	<b>646.5980, 628.5949, 610.5137, 406.3669, 364.3572, 318.2947, 300.2905, 282.2787, 264.2682, 252.2680, 60.0438</b>	
<b>114 Cer (t18:0/24:5)</b>	<b>C42 H75 N O4</b>	<b>16.05</b>	<b>80.65</b>	<b>-1.08</b>	<b>658.5769</b>	<b>658.5750</b>	<b>640.5572, 622.4898, 604.5243, 400.3674, 358.3593, 318.3116, 300.2900, 282.2790, 264.2683, 252.2692, 60.0438</b>	
115 Cer (t18:0/25:0)	C43 H87 N O4	18.65	93.89	-1.80	682.6708	682.6698	664.6592, 646.6489, 628.6402, 318.3007, 300.2895, 282.2792, 264.2688, 252.2687, 60.0445	
116 Cer (t18:0/26:0) isomer	C44 H89 N O4	18.77	96.22	-2.20	696.6864	696.6850	678.6762, 660.6663, 642.6543, 630.6419, 318.2998, 300.2892, 282.2793, 264.2686, 252.2674, 60.0444	
117 Cer (t18:0/27:0) isomer	C45 H91 N O4	19.33	91.39	1.28	710.7021	710.7045	692.6832, 674.6883, 300.2912, 282.2786, 264.2683, 60.0444	
118 Cer (t18:0/26:0)	C44 H89 N O4	19.48	96.19	-2.22	696.6864	696.6850	678.6746, 660.6626, 318.3009, 300.2890, 282.2792, 264.2694, 252.2681, 60.0444	
119 Cer (t18:0/27:0)	C45 H91 N O4	20.35	86.91	-3.12	710.7021	710.7004	692.6925, 674.6793, 656.6145, 318.3012, 300.2883, 282.2791, 264.2674, 60.0446	
120 Cer (t18:0/25:1)	C43 H85 N O4	18.28	80.66	1.88	680.6551	680.6541	662.6531, 644.6406, 318.2999, 300.2890, 282.2793, 264.2682, 252.2694, 60.0444	
121 Cer (t18:0/26:1)	C44 H87 N O4	18.58	76.77	-4.31	694.6708	694.6677	676.6412, 658.6339, 640.6337, 318.2991, 300.2894, 282.2789, 264.2680, 252.2414, 60.0439	
<b>122 Cer (t18:0/26:5)</b>	<b>C44 H79 N O4</b>	<b>16.05</b>	<b>61.51</b>	<b>7.15</b>	<b>686.6082</b>	<b>686.6039</b>	<b>668.6074, 650.6051, 632.5979, 318.2995, 300.2918, 282.2780, 264.2683, 60.0438</b>	
123 Cer (t19:0/18:1)	C37 H73 N O4	14.50	70.45	3.42	596.5612	596.5602	578.5495, 560.5412, 548.5348, 332.3153, 314.3049, 296.2946,	



								278.2842, 266.2574, 60.0438				
124 Cer (t19:0/18:2)	C37 H71 N O4	13.60	72.83	1.21	594.5456	594.5451	576.5337, 558.5162, 332.3162, 314.3056, 296.2948, 278.2834, 266.2282, 60.0440					
125 Cer (t20:0/26:0)	C46 H93 N O4	21.24	96.16	-2.32	724.7177	724.7161	706.7055, 688.6957, 346.3329, 328.3209, 310.3114, 292.2996, 280.2978, 60.0444					
<b>126 Cer (t20:0/26:1)</b>	<b>C46 H91 N O4</b>	<b>20.72</b>	<b>63.46</b>	<b>-1.85</b>	<b>722.7021</b>	<b>722.7009</b>	<b>704.7011, 686.6849, 346.3299, 328.3222, 310.3095, 292.2997, 280.3009, 60.0445</b>					
127 Cer (t20:0/30:1)	C50 H99 N O4	22.40	83.42	-3.29	778.7647	778.7627	760.7500, 742.7370, 310.3111, 292.2998, 280.2998, 60.0445					
128 Cer (t20:0/31:1)	C51 H101 N O4	23.27	75.18	-4.77	792.7803	792.7782	774.7702, 756.7553, 738.7353, 310.3082, 292.2988, 280.3001, 60.0444					
129 Cer (t22:0/25:0)	C47 H95 N O4	21.90	94.15	-2.71	738.7334	738.7316	720.7216, 702.7125, 374.3682, 356.3524, 338.3409, 320.3314, 308.3336, 60.0444					
130 Cer (t22:0/26:0)	C48 H97 N O4	22.44	95.47	-2.37	752.749	752.7474	734.7371, 716.7219, 698.7067, 374.3607, 356.3535, 338.3418, 320.3323, 308.3328, 60.0445					
<b>131 Cer (t22:0/26:1)</b>	<b>C48 H95 N O4</b>	<b>22.47</b>	<b>61.42</b>	<b>0.05</b>	<b>750.7334</b>	<b>750.7345</b>	<b>732.7208, 714.7138, 374.3637, 356.3513, 338.3410, 320.3314, 308.3287, 60.0444</b>					
132 Cer (t22:0/27:0)	C49 H99 N O4	22.92	93.63	-2.63	766.7647	766.7630	748.7530, 730.7428, 374.3635, 356.3529, 338.3420, 320.3311, 308.3214, 60.0443					
133 Cer (t22:0/28:0)	C50 H101 N O4	23.50	95.82	-1.75	780.7803	780.7786	762.7694, 744.7563, 726.7574, 374.3592, 356.3517, 338.3406, 320.3308, 308.3273, 60.0445					
<b>134 Cer (t16:0/12:0(OH))</b>	<b>C28 H57 N O5</b>	<b>7.67</b>	<b>80.92</b>	<b>-5.28</b>	<b>488.4310</b>	<b>488.4285</b>	<b>470.3743, 236.2407, 60.0443</b>					
135 Cer (t18:0/16:0(OH))	C34 H69 N O5	12.05	91.03	-2.65	572.5249	572.5237	554.4728, 542.4728, 536.5024, 518.4919, 500.4885, 318.2993, 300.2893, 282.2792, 264.2683, 252.2691, 60.0440					
<b>136 Cer (t18:0/17:0(OH))</b>	<b>C35 H71 N O5</b>	<b>12.61</b>	<b>65.94</b>	<b>3.03</b>	<b>586.5405</b>	<b>586.5392</b>	<b>568.5296, 550.5165, 532.5129, 318.2998, 300.2871, 282.2783,</b>					

								<b>264.2678, 60.0438</b>				
<b>137 Cer (t18:0/17:4(OH))</b>	<b>C35 H63 N O5</b>	<b>10.20</b>	<b>85.77</b>	<b>-0.49</b>	<b>578.4779</b>	<b>578.4774</b>	<b>560.4748, 300.2878, 282.2789, 264.2681, 252.2725, 60.0444</b>					
138 Cer (t18:0/18:0(OH))	C36 H63 N O5	13.20	96.03	-0.08	600.5562	600.5565	582.5444, 564.5341, 546.5231, 528.5074, 318.2988, 300.2889, 282.2786, 264.2679, 252.2680, 60.0438					
139 Cer (t18:0/20:0(OH))	C38 H77 N O5	14.50	82.50	-3.27	628.5875	628.5857	610.5772, 592.5657, 574.5547, 318.2995, 300.2892, 282.2792, 264.2683, 252.2689, 60.0444					
140 Cer (t18:0/21:0(OH))	C39 H79 N O5	15.15	93.93	0.48	642.6031	642.6031	624.5913, 606.5805, 588.5660, 570.4251, 318.3165, 300.2898, 282.2783, 264.2678, 252.2670, 60.0438					
141 Cer (t18:0/22:0(OH))	C40 H81 N O5	15.80	99.55	-0.17	656.6188	656.6186	638.6073, 620.5966, 602.5860, 584.5751, 318.3005, 300.2900, 282.2798, 264.2691, 252.2691, 60.0445					
142 Cer (t18:0/23:0(OH))	C41 H83 N O5	16.45	99.00	0.13	670.6344	670.6345	652.6223, 634.6119, 616.6004, 604.5986, 598.5930, 318.3001, 300.2897, 282.2796, 264.2688, 252.2690, 60.0445					
143 Cer (t18:0/23:1(OH))	C41 H81 N O5	15.32	94.48	-0.67	668.6188	668.6185	650.6076, 632.5961, 614.5852, 596.5374, 318.3008, 300.2895, 282.2794, 264.2685, 252.2694, 60.0444					
144 Cer (t18:0/24:0(OH))	C42 H85 N O5	17.13	98.90	-0.24	684.6501	684.6497	666.6391, 648.6288, 630.6174, 612.6071, 318.3006, 300.2902, 282.2798, 264.2692, 252.2693, 60.0445					
145 Cer (t18:0/24:1(OH))	C42 H83 N O5	16.02	97.11	-1.56	682.6344	682.6333	664.6214, 646.6117, 628.6013, 610.5933, 318.3001, 300.2894, 282.2796, 264.2688, 252.2686, 60.0445					
146 Cer (t18:0/25:0(OH))	C43 H87 N O5	17.83	98.68	-0.38	698.6657	698.6653	680.6533, 662.6426, 644.6315, 626.6226, 614.6232, 318.3002, 300.2894, 282.2795, 264.2686, 252.2687, 60.0444					
147 Cer (t18:0/26:0(OH))	C44 H89 N O5	18.58	95.18	-1.79	712.6814	712.6802	694.6694, 676.6593, 658.6466, 640.6314, 318.3008, 300.2892, 282.2794, 264.2685, 252.2697, 60.0444					
148 Cer (d14:1/16:0)	C30 H59 N O3	11.00	85.53	-2.51	482.4568	482.4561	226.2164, 208.2064, 196.2068, 60.0444					

149 Cer (d14:1/18:0)	C32 H63 N O3	12.10	70.12	3.25	510.4881	510.4866	244.1701, 226.2159, 208.2064, 196.2065, 60.0443
150 Cer (d14:1/18:1)	C32 H61 N O3	11.32	75.17	-1.78	508.4724	508.4715	490.4637, 244.1489, 226.2164, 208.2065, 196.2068, 60.0443
<b>151 Cer (d14:1/18:2)</b>	<b>C32 H59 N O3</b>	<b>11.16</b>	<b>91.52</b>	<b>-2.46</b>	<b>506.4568</b>	<b>506.4553</b>	<b>488.4472, 470.6828, 226.2163, 208.2048, 196.2048, 60.0438</b>
152 Cer (d14:1/20:0)	C34 H67 N O3	13.30	60.57	2.67	538.5194	538.5200	520.5080, 502.4976, 490.4968, 226.2163, 208.2055, 196.2052, 60.0445
<b>153 Cer (d14:1/20:4)</b>	<b>C34 H59 N O3</b>	<b>11.68</b>	<b>79.05</b>	<b>2.68</b>	<b>530.4568</b>	<b>530.4548</b>	<b>512.4422, 226.2152, 208.2064, 196.2070, 60.0442</b>
154 Cer (d14:1/22:0)	C36 H71 N O3	14.63	98.78	0.32	566.5507	566.5507	548.5370, 530.5258, 226.2165, 208.2067, 196.2065, 60.0445
155 Cer (d14:1/23:0)	C37 H73 N O3	15.30	97.85	-0.99	580.5663	580.5664	562.5615, 544.5448, 226.2158, 208.2063, 196.2063, 60.0444
156 Cer (d14:1/24:0)	C38 H75 N O3	16.03	85.79	0.26	594.5820	594.5817	576.5717, 558.5551, 546.5523, 226.2164, 208.2067, 196.2065, 60.0445
157 Cer (d14:2/16:0)	C30 H57 N O3	10.78	94.25	2.38	480.4411	480.4400	462.3710, 224.2009, 206.1906, 194.1890, 60.0445
<b>158 Cer (d14:2/18:2)</b>	<b>C32 H57 N O3</b>	<b>11.06</b>	<b>77.82</b>	<b>3.59</b>	<b>504.4411</b>	<b>504.4390</b>	<b>242.1975, 224.1959, 206.1905, 194.1914, 60.0443</b>
<b>159 Cer (d14:2/20:4)</b>	<b>C34 H57 N O3</b>	<b>10.96</b>	<b>85.99</b>	<b>3.65</b>	<b>528.4411</b>	<b>528.4393</b>	<b>510.4281, 224.2026, 206.1893, 60.0438</b>
<b>160 Cer (d14:2/20:5)</b>	<b>C34 H55 N O3</b>	<b>10.48</b>	<b>86.16</b>	<b>4.11</b>	<b>526.4255</b>	<b>526.4235</b>	<b>508.4086, 206.1894, 60.0437</b>
<b>161 Cer (d14:2/20:6)</b>	<b>C34 H53 N O3</b>	<b>10.13</b>	<b>80.80</b>	<b>3.88</b>	<b>524.4098</b>	<b>524.4069</b>	<b>506.3812, 224.2058, 206.1891, 60.0437</b>
<b>162 Cer (d14:2/24:3)</b>	<b>C38 H67 N O3</b>	<b>14.15</b>	<b>88.75</b>	<b>-3.97</b>	<b>586.5194</b>	<b>586.5169</b>	<b>568.5049, 538.4920, 224.2005, 206.1909, 194.1884, 60.0444</b>
<b>163 Cer (d14:2/25:3)</b>	<b>C39 H69 N O3</b>	<b>14.82</b>	<b>80.84</b>	<b>-4.03</b>	<b>600.5350</b>	<b>600.5324</b>	<b>582.5183, 552.5139, 224.2065, 206.1907, 194.1917, 60.0444</b>
<b>164 Cer (d14:2/26:3)</b>	<b>C40 H71 N O3</b>	<b>15.53</b>	<b>88.32</b>	<b>-3.66</b>	<b>614.5507</b>	<b>614.5484</b>	<b>596.5388, 566.5217, 224.2010, 206.1905, 194.1142, 60.0444</b>
165 Cer (d15:1/20:0)	C35 H69 N O3	13.88	73.53	-0.17	552.5350	552.5341	534.5190, 504.5190, 240.2322, 222.2219, 210.2216, 60.0444
166 Cer (d15:1/22:0)	C37 H73 N O3	15.08	87.15	-0.67	580.5663	580.5656	562.5619, 544.5423, 240.2324, 222.2221, 210.2222, 60.0444
<b>167 Cer (d15:1/22:1)</b>	<b>C37 H71 N O3</b>	<b>14.68</b>	<b>75.69</b>	<b>-1.61</b>	<b>578.5507</b>	<b>578.5499</b>	<b>560.5363, 542.5317, 530.5252, 240.2324, 222.2220, 210.2218, 60.0444</b>
<b>168 Cer (d15:2/22:1)</b>	<b>C37 H69 N O3</b>	<b>14.00</b>	<b>69.76</b>	<b>-1.63</b>	<b>576.5350</b>	<b>576.5342</b>	<b>558.5212, 238.2157, 220.2064, 208.2057, 60.0444</b>
169 Cer (d16:1/22:0)	C38 H75 N O3	15.83	93.75	0.01	594.5820	594.5818	576.5789, 558.5592, 546.5678, 272.2603, 254.2479, 236.2373, 224.2377, 60.0444

170 Cer (d16:1/22:1)	C38 H73 N O3	15.21	80.88	2.30	592.5663	592.5669	574.5528, 556.5449, 254.2283, 236.2364, 224.2380, 60.0438
<b>171 Cer (d16:1/22:2)</b>	<b>C38 H71 N O3</b>	<b>15.07</b>	<b>62.36</b>	<b>0.33</b>	<b>590.5507</b>	<b>590.5485</b>	<b>572.5410, 272.2396, 254.2482, 236.2374, 224.2377, 60.0444</b>
172 Cer (d16:1/24:0)	C40 H79 N O3	17.21	93.81	0.54	622.6133	622.6125	604.6023, 586.5933, 574.5919, 254.2468, 236.2370, 224.2236, 60.0439
<b>173 Cer (d16:2/22:2)</b>	<b>C38 H69 N O3</b>	<b>14.61</b>	<b>77.60</b>	<b>4.60</b>	<b>588.5350</b>	<b>588.5335</b>	<b>570.5212, 252.2318, 234.2216, 222.2207, 60.0439</b>
<b>174 Cer (d16:2/23:1)</b>	<b>C39 H73 N O3</b>	<b>15.53</b>	<b>80.53</b>	<b>3.43</b>	<b>604.5663</b>	<b>604.5646</b>	<b>586.5535, 568.5508, 252.2267, 234.2215, 222.2207, 60.0438</b>
<b>175 Cer (d16:2/23:2)</b>	<b>C39 H71 N O3</b>	<b>15.28</b>	<b>86.09</b>	<b>3.94</b>	<b>602.5507</b>	<b>602.5485</b>	<b>584.5293, 252.2321, 234.2216, 222.2217, 60.0444</b>
<b>176 Cer (d16:2/24:2)</b>	<b>C40 H73 N O3</b>	<b>16.05</b>	<b>75.32</b>	<b>3.60</b>	<b>616.5663</b>	<b>616.5644</b>	<b>598.5288, 252.2318, 234.2220, 222.2215, 60.0445</b>
177 Cer (d18:1/14:1)	C32 H61 N O3	11.56	88.80	-3.29	508.4724	508.4722	300.2695, 282.2791, 264.2684, 252.2678, 60.0443
178 Cer (d18:1/16:0)	C34 H67 N O3	13.20	92.16	2.67	538.5194	538.5200	520.5080, 502.4976, 490.4968, 300.2920, 282.2788, 264.2682, 252.2681, 60.0438
179 Cer (d18:1/16:1)	C34 H65 N O3	12.70	94.00	-0.28	536.5037	536.5037	518.4883, 500.4830, 488.4807, 300.2890, 282.2789, 264.2688, 252.2689, 60.0444
180 Cer (d18:1/17:0)	C35 H69 N O3	13.80	80.51	-0.37	552.5350	552.5345	534.5235, 516.5156, 504.5099, 282.2786, 264.2680, 252.2697, 60.0438
181 Cer (d18:1/17:1)	C35 H67 N O3	13.35	94.17	0.45	550.5194	550.5194	532.5075, 520.5060, 514.4981, 300.2866, 282.2784, 264.2683, 60.0439
182 Cer (d18:1/18:0)	C36 H71 N O3	14.46	98.8	-1.01	566.5507	566.5512	548.5392, 530.5392, 300.2905, 282.2787, 264.2683, 252.2691, 60.0437
183 Cer (d18:1/18:1)	C36 H69 N O3	13.95	90.93	-0.81	564.5350	564.5355	546.5240, 528.5261, 300.2706, 282.2789, 264.2685, 252.2689, 60.0444
184 Cer (d18:1/18:2)	C36 H67 N O3	13.50	99.22	-0.60	562.5194	562.5197	544.5092, 526.4973, 282.2799, 264.2687, 252.2134, 60.0445
185 Cer (d18:1/20:0)	C38 H75 N O3	15.84	94.73	-0.43	594.5820	594.5823	576.5726, 558.5505, 300.2866, 282.2785, 264.2683, 252.2677, 60.0445
186 Cer (d18:1/20:1)	C38 H73 N O3	15.23	75.43	-0.45	592.5663	592.5668	574.5589, 556.5482, 300.2693, 282.2785, 264.2677, 252.2622, 60.0438
187 Cer (d18:1/21:0)	C39 H77 N O3	16.55	72.25	1.68	608.5976	608.5974	590.5844, 572.5753, 300.2740, 282.2788, 264.2683, 252.2695, 60.0433
188 Cer (d18:1/22:0)	C40 H79 N O3	17.25	65.73	0.12	622.6133	622.6122	604.5901, 586.5897, 574.5606, 300.2874, 282.2793, 264.2685, 252.2692, 60.0443
189 Cer (d18:1/22:1)	C40 H77 N O3	16.53	75.34	-3.54	620.5976	620.5969	602.5862, 584.5745, 300.2867, 282.2782, 264.2676, 252.2681, 60.0438

190	Cer (d18:1/22:2)	C40 H75 N O3	16.32	61.25	-3.06	618.5820	618.5790	600.5703, 582.5579, 300.2832, 282.2801, 264.2685, 252.2690, 60.0444
191	Cer (d18:1/23:0)	C41 H81 N O3	17.95	68.37	-1.02	636.6289	636.6282	618.6271, 600.6136, 588.6035, 300.2935, 282.2794, 264.2686, 252.2680, 60.0445
192	Cer (d18:1/23:1)	C41 H79 N O3	17.02	66.13	0.08	634.6133	634.6129	616.5984, 598.5948, 300.2891, 282.2786, 264.2688, 252.2680, 60.0444
<b>193</b>	<b>Cer (d18:1/23:5)</b>	<b>C41 H71 N O3</b>	<b>13.00</b>	<b>75.79</b>	<b>-3.03</b>	<b>626.5507</b>	<b>626.5537</b>	<b>608.5416, 590.5322, 300.2876, 282.2781, 264.2680, 252.2646, 60.0438</b>
194	Cer (d18:1/24:0)	C42 H83 N O3	18.68	70.23	-0.73	650.6446	650.6431	632.6388, 614.6308, 602.6239, 300.2876, 282.2794, 264.2686, 252.2689, 60.0444
195	Cer (d18:1/24:1)	C42 H81 N O3	17.81	64.02	1.52	648.6289	648.6287	630.6203, 612.6077, 600.6053, 300.2895, 282.2793, 264.2688, 252.2689, 60.0444
196	Cer (d18:1/24:2)	C42 H79 N O3	17.59	70.45	-2.54	646.6133	646.6106	628.6036, 610.5821, 282.2786, 264.2679, 252.2686, 60.0439
197	Cer (d18:1/24:5)	C42 H73 N O3	13.60	83.53	-2.66	640.5663	640.5683	622.5577, 604.5419, 300.2869, 282.2816, 264.2679, 252.2646, 60.0438
198	Cer (d18:1/25:0)	C43 H85 N O3	19.50	72.04	-0.01	664.6602	664.6593	646.6523, 300.2867, 282.2787, 264.2681, 252.2657, 60.0435
199	Cer (d18:1/25:1)	C43 H83 N O3	18.60	63.55	-3.53	662.6446	662.6426	644.6228, 300.2881, 282.2784, 264.2683, 252.2673, 60.0444
<b>200</b>	<b>Cer (d18:1/25:2)</b>	<b>C43 H81 N O3</b>	<b>18.41</b>	<b>61.26</b>	<b>1.29</b>	<b>660.6289</b>	<b>660.6258</b>	<b>300.2914, 282.2794, 264.2686, 252.2697, 60.0445</b>
<b>201</b>	<b>Cer (d18:1/25:4)</b>	<b>C43 H77 N O3</b>	<b>13.64</b>	<b>70.95</b>	<b>5.11</b>	<b>656.5976</b>	<b>656.5949</b>	<b>638.5964, 620.5934, 300.2920, 282.2783, 264.2673, 252.2687, 60.0437</b>
202	Cer (d18:1/26:0)	C44 H87 N O3	20.40	77.01	1.09	678.6759	678.6747	660.6770, 300.2862, 282.2806, 264.2682, 252.2684, 60.0444
203	Cer (d18:1/26:1)	C44 H85 N O3	19.23	69.78	2.34	676.6602	676.6574	658.6508, 640.6382, 282.2785, 264.2684, 60.0483
<b>204</b>	<b>Cer (d18:1/26:4)</b>	<b>C44 H77 N O3</b>	<b>14.35</b>	<b>94.37</b>	<b>2.07</b>	<b>668.5976</b>	<b>668.5991</b>	<b>650.5900, 300.2882, 282.2813, 264.2679, 60.0437</b>
<b>205</b>	<b>Cer (d18:1/26:4) isomer</b>	<b>C44 H77 N O3</b>	<b>13.20</b>	<b>77.90</b>	<b>0.99</b>	<b>668.5976</b>	<b>668.5989</b>	<b>650.5833, 632.5784, 300.2890, 282.2784, 264.2678, 252.2683, 60.0438</b>
<b>206</b>	<b>Cer (d18:1/27:5)</b>	<b>C45 H79 N O3</b>	<b>15.10</b>	<b>70.79</b>	<b>-5.50</b>	<b>682.6133</b>	<b>682.6174</b>	<b>664.6041, 646.5940, 300.2891, 282.2779, 264.2679, 252.2679, 60.0438</b>
207	Cer (d18:1/28:4)	C46 H83 N O3	15.40	70.34	-4.32	698.6446	698.6412	300.2862, 282.2787, 264.2677, 60.0439
<b>208</b>	<b>Cer (d18:1/28:5)</b>	<b>C46 H81 N O3</b>	<b>15.60</b>	<b>71.59</b>	<b>-3.93</b>	<b>696.6289</b>	<b>696.6324</b>	<b>678.6159, 660.6082, 300.2740, 282.2785, 264.2679, 252.2684, 60.0438</b>
<b>209</b>	<b>Cer (d18:1/29:5)</b>	<b>C47 H83 N O3</b>	<b>16.20</b>	<b>77.15</b>	<b>-3.69</b>	<b>710.6446</b>	<b>710.6476</b>	<b>692.6337, 674.6262, 300.2887, 282.2789, 264.2679, 252.2682, 60.0439</b>

<b>210 Cer (d18:1/32:4)</b>	<b>C50 H91 N O3</b>	<b>17.70</b>	<b>61.11</b>	<b>-1.99</b>	<b>754.7072</b>	<b>754.7036</b>	<b>736.6524, 718.6279, 282.2788, 264.2689, 60.0436</b>
211 Cer (d18:1/32:5)	C50 H89 N O3	17.65	76.56	-2.45	752.6915	752.6944	734.6812, 716.6725, 300.2906, 282.2783, 264.2678, 252.2644, 60.0437
212 Cer (d19:1/24:0)	C43 H85 N O3	19.58	76.42	1.15	664.6602	664.6588	646.6520, 296.3310, 278.2849, 266.2833, 60.0436
213 Cer (d19:2/16:0)	C35 H67 N O3	13.03	98.78	-0.26	550.5194	550.5194	532.5097, 514.4927, 502.4931, 312.2890, 294.2785, 276.2685, 264.2688, 60.0445
<b>214 Cer (d19:2/16:1)</b>	<b>C35 H65 N O3</b>	<b>12.93</b>	<b>96.12</b>	<b>-0.77</b>	<b>548.5037</b>	<b>548.5042</b>	<b>312.2895, 294.2790, 276.2687, 264.2683, 60.0444</b>
<b>215 Cer (d19:2/16:2)</b>	<b>C35 H63 N O3</b>	<b>10.70</b>	<b>78.16</b>	<b>-5.54</b>	<b>546.4881</b>	<b>546.4856</b>	<b>528.4767, 510.4620, 498.4630, 294.2815, 276.2684, 264.2674, 60.0445</b>
216 Cer (d19:2/18:2)	C37 H67 N O3	13.60	60.45	-5.37	574.5194	574.5164	294.2772, 276.2690, 264.2683
<b>217 Cer (d19:2/18:3)</b>	<b>C37 H65 N O3</b>	<b>13.42</b>	<b>72.89</b>	<b>2.89</b>	<b>572.5037</b>	<b>572.5013</b>	<b>554.4765, 312.2939, 294.2777, 276.2684, 264.2683, 60.0444</b>
<b>218 Cer (d19:2/18:4)</b>	<b>C37 H63 N O3</b>	<b>12.23</b>	<b>63.95</b>	<b>6.10</b>	<b>570.4881</b>	<b>570.4846</b>	<b>552.4873, 534.4846, 312.2876, 294.2788, 276.2674, 264.2675, 60.0438</b>
219 Cer (d19:2/20:0)	C39 H75 N O3	15.83	70.56	-3.24	606.5820	606.5815	588.5678, 570.5591, 294.2788, 276.2676, 264.2673, 60.0438
<b>220 Cer (d19:2/20:4)</b>	<b>C39 H67 N O5</b>	<b>13.35</b>	<b>90.84</b>	<b>3.17</b>	<b>598.5194</b>	<b>598.5176</b>	<b>580.5193, 562.5156, 312.3244, 294.2816, 276.2678, 264.2680, 60.0439</b>
<b>221 Cer (d19:2/21:5)</b>	<b>C40 H67 N O3</b>	<b>12.36</b>	<b>71.01</b>	<b>-6.14</b>	<b>610.5194</b>	<b>610.5235</b>	<b>592.5112, 574.5010, 294.2754, 276.2675, 264.2670, 60.0438</b>
<b>222 Cer (d19:2/22:1)</b>	<b>C41 H77 N O3</b>	<b>16.83</b>	<b>60.44</b>	<b>-0.83</b>	<b>632.5976</b>	<b>632.5950</b>	<b>614.5356, 294.2783, 276.2680, 264.2694, 60.0443</b>
<b>223 Cer (d19:2/24:1)</b>	<b>C43 H81 N O3</b>	<b>17.85</b>	<b>66.77</b>	<b>-2.57</b>	<b>660.6267</b>	<b>660.6268</b>	<b>642.6215, 624.5982, 612.6075, 294.2784, 276.2682, 264.2677, 60.0444</b>
<b>224 Cer (d19:2/24:2)</b>	<b>C43 H79 N O3</b>	<b>18.00</b>	<b>61.37</b>	<b>2.94</b>	<b>658.6133</b>	<b>658.6100</b>	<b>640.6160, 294.2813, 276.2669, 264.2683, 60.0438</b>
<b>225 Cer (d19:3/17:4)</b>	<b>C36 H59 N O3</b>	<b>11.28</b>	<b>70.54</b>	<b>2.13</b>	<b>554.4568</b>	<b>554.4541</b>	<b>536.4232, 292.2621, 274.2524, 262.2497, 60.0438</b>
226 Cer (d20:1/24:1)	C44 H85 N O3	19.54	80.43	-2.35	676.6602	676.6584	658.6530, 310.3071, 292.2995, 280.3015, 60.0438
227 Cer (d20:1/25:0)	C45 H89 N O3	21.30	65.70	-1.52	692.6915	692.6894	310.3110, 292.2997, 280.2976, 60.0443
228 Cer (d20:1/26:0)	C46 H91 N O3	22.00	63.42	1.16	706.7072	706.7055	688.7034, 670.6835, 328.3253, 310.3105, 292.2999, 280.2994, 60.0444
<b>229 Cer (d20:1/26:2)</b>	<b>C46 H87 N O3</b>	<b>21.17</b>	<b>60.14</b>	<b>-3.86</b>	<b>702.6759</b>	<b>702.6720</b>	<b>684.6607, 328.3002, 310.3127, 292.2998, 280.2994, 60.0445</b>
230 Cer (d20:1/27:0)	C47 H93 N O3	22.60	64.89	-0.93	720.7228	720.7207	702.7083, 684.7016, 310.3095, 292.2998, 280.3012, 60.0444
<b>231 Cer (d20:2/28:0)</b>	<b>C48 H93 N O3</b>	<b>21.24</b>	<b>83.22</b>	<b>-4.72</b>	<b>732.7228</b>	<b>732.7198</b>	<b>714.7022, 326.3055, 308.2946, 290.2848, 278.2872, 60.0445</b>

<b>232 Cer (d21:1/28:0)</b>	<b>C49 H97 N O3</b>	<b>23.42 68.25 -1.47</b>	<b>748.7541 748.7518</b>	<b>730.6799, 324.3259, 306.3160, 294.3166, 60.0442</b>
<b>233 Cer (d22:1/26:2)</b>	<b>C48 H91 N O3</b>	<b>22.42 74.07 -4.33</b>	<b>730.7072 730.7034</b>	<b>712.7041, 356.3303, 338.3414, 320.3307, 308.3314, 60.0442</b>
234 Cer (d22:1/26:0)	C48 H95 N O3	22.99 62.45 1.73	734.7385 734.7370	716.7297, 698.7081, 338.3418, 320.3309, 308.3295, 60.0445
<b>235 Cer (d22:1/27:2)</b>	<b>C49 H93 N O3</b>	<b>22.89 71.79 -5.40</b>	<b>744.7228 744.7184</b>	<b>726.6413, 320.3312, 308.3324, 60.0445</b>
236 Cer (d22:1/28:0)	C50 H99 N O3	23.85 78.70 -0.61	762.7698 762.7679	744.7567, 726.7396, 338.3407, 320.3318, 308.3309, 60.0444
<b>237 Cer (d14:1/18:3(OH))</b>	<b>C32 H57 N O4</b>	<b>13.62 97.64 -0.54</b>	<b>520.4360 520.4354</b>	<b>226.2176, 208.2065, 196.2062, 60.0445</b>
<b>238 Cer (d14:2/14:3(OH))</b>	<b>C28 H47 N O4</b>	<b>9.03 89.60 -1.61</b>	<b>462.3578 462.3571</b>	<b>444.3234, 206.1909, 60.0432</b>
239 Cer (d18:1/24:0(OH))	C42 H83 N O4	17.98 86.98 0.55	666.6395 666.6397	648.6270, 630.6195, 300.2887, 282.2787, 264.2681, 252.2683, 60.0439
<b>240 Cer (d18:1/26:2(OH))</b>	<b>C44 H83 N O4</b>	<b>18.55 87.88 -3.14</b>	<b>690.6395 690.6376</b>	<b>672.6232, 300.2876, 282.2766, 264.2685, 252.2686, 60.0444</b>
241 Cer (d19:2/16:1(OH))	C35 H65 N O4	11.98 99.09 -0.05	564.4986 564.4986	546.4859, 528.4769, 510.4669, 498.4673, 312.2901, 294.2786, 276.2685, 264.2686, 60.0445
<b>242 Cer (d19:2/25:2(OH))</b>	<b>C44 H81 N O4</b>	<b>17.90 68.92 -0.54</b>	<b>688.6238 688.6235</b>	<b>670.6204, 294.2822, 276.2681, 264.2685, 60.0444</b>
<b>243 Cer (d19:3/16:1(OH))</b>	<b>C35 H63 N O4</b>	<b>10.27 86.35 -1.54</b>	<b>562.4830 562.4823</b>	<b>544.4573, 526.4616, 514.4674, 310.2741, 292.2638, 274.2525, 262.2538, 60.0443</b>
<b>244 Cer (d20:1/26:2(OH))</b>	<b>C46 H87 N O4</b>	<b>19.50 74.11 -5.66</b>	<b>718.6708 718.6666</b>	<b>700.6493, 328.3003, 310.2958, 292.2999, 280.3026, 60.0442</b>
<b>245 Cer (d20:1/28:2(OH))</b>	<b>C48 H91 N O4</b>	<b>21.22 81.74 -4.48</b>	<b>746.7021 746.6990</b>	<b>728.6892, 328.3194, 310.3141, 292.3000, 280.3083, 60.0444</b>
246 Cer (t18:1/16:0)	C34 H67 N O4	12.07 98.07 -0.36	554.5143 554.5140	536.5034, 518.4917, 500.4812, 488.4821, 316.2846, 298.2742, 280.2636, 262.2535, 250.2534, 60.0445
<b>247 Cer (t18:1/16:1)</b>	<b>C34 H65 N O4</b>	<b>11.36 80.67 0.67</b>	<b>552.4986 552.4988</b>	<b>534.4856, 516.4770, 316.2805, 298.2729, 280.2632, 262.2532, 250.2522, 60.0438</b>
<b>248 Cer (t18:1/17:0)</b>	<b>C35 H69 N O4</b>	<b>12.61 99.87 0.34</b>	<b>568.5299 568.5297</b>	<b>550.5129, 532.5038, 514.4871, 502.4912, 316.2853, 298.2738, 280.2637, 262.2534, 250.2529, 60.0444</b>

249	Cer (t18:1/18:0)	C36 H71 N O4	12.90	99.97	-0.14	582.5456	582.5457	564.5339, 546.5239, 528.5136, 316.2842, 298.2728, 280.2628, 262.2524, 250.2521, 60.0439
250	Cer (t18:1/18:1)	C36 H69 N O4	12.36	98.28	-0.95	580.5299	580.5303	562.5187, 544.5075, 526.4959, 316.2841, 298.2731, 280.2626, 262.2523, 250.2522, 60.0439
251	Cer (t18:1/18:2) isomer	C36 H67 N O4	11.68	98.06	-0.26	578.5143	578.5140	560.4973, 542.4909, 524.4842, 512.4799, 316.2846, 298.2739, 280.2634, 262.2533, 250.2535, 60.0445
252	Cer (t18:1/18:2)	C36 H67 N O4	12.50	70.64	2.72	578.5143	578.5128	560.4902, 542.4856, 524.4864, 316.2840, 298.2732, 280.2627, 262.2526, 250.2529, 60.0439
253	Cer (t18:1/18:3)	C36 H65 N O4	12.10	96.31	1.76	576.4986	576.4976	558.4670, 522.4742, 316.2826, 298.2727, 280.2623, 262.2526, 250.2160, 60.0438
254	Cer (t18:1/18:4)	C36 H63 N O4	12.25	84.80	-2.39	574.4830	574.4811	556.4733, 538.4963, 526.4603, 316.2598, 298.2548, 280.2441, 262.2545, 250.2498, 60.0444
255	Cer (t18:1/18:5)	C36 H61 N O4	11.65	71.61	-2.02	572.4673	572.4655	316.2662, 298.2726, 280.2635, 262.2536, 250.2538, 60.0444
256	Cer (t18:1/19:0)	C37 H73 N O4	13.97	72.22	1.09	596.5612	596.5609	578.5503, 560.5393, 316.2833, 298.2719, 280.2616, 262.2507, 250.2536, 60.0438
257	Cer (t18:1/20:0)	C38 H75 N O4	14.53	89.85	2.91	610.5769	610.5751	592.5653, 574.5535, 556.5479, 316.2853, 298.2732, 280.2626, 262.2534, 250.2535, 60.0439
258	Cer (t18:1/20:3)	C38 H69 N O4	13.75	72.92	-0.03	604.5299	604.5302	586.5114, 298.2549, 280.2431, 262.2524, 250.1978, 60.0438
259	Cer (t18:1/21:0)	C39 H77 N O4	15.18	67.91	2.25	624.5925	624.5937	606.5834, 588.5681, 570.5621, 316.2832, 298.2738, 280.2632, 262.2539, 250.2529, 60.0445
260	Cer (t18:1/22:0)	C40 H79 N O4	15.85	97.62	0.17	638.6082	638.6082	620.5952, 602.5859, 584.5758, 316.2848, 298.2741, 280.2635, 262.2532, 250.2532, 60.0445
261	Cer (t18:1/22:2)	C40 H75 N O4	15.06	60.13	4.36	634.5769	634.5737	616.5468, 598.5342, 316.2847, 298.2728, 280.2610, 262.2511,



								<b>250.2529, 60.0438</b>
<b>262 Cer (t18:1/22:3)</b>	<b>C40 H73 N O4</b>	<b>15.20</b>	<b>63.73</b>	<b>-1.93</b>	<b>632.5612</b>	<b>632.5615</b>	<b>316.2800, 298.2719, 280.2616, 262.2519, 250.2531, 60.0438</b>	
<b>263 Cer (t18:1/22:4)</b>	<b>C40 H71 N O4</b>	<b>14.78</b>	<b>83.30</b>	<b>-1.66</b>	<b>630.5456</b>	<b>630.5442</b>	<b>612.5304, 582.5223, 298.3091, 280.2625, 262.2531, 250.2537, 60.0445</b>	
264 Cer (t18:1/23:0)	C41 H81 N O4	16.50	92.67	0.77	652.6238	652.6242	634.6119, 616.6029, 598.5842, 316.2845, 298.2736, 280.2635, 262.2533, 250.2528, 60.0445	
265 Cer (t18:1/24:0)	C42 H83 N O4	17.22	99.65	0.15	666.6395	666.6397	648.6274, 630.6160, 612.6058, 600.6070, 316.2843, 298.2740, 280.2634, 262.2533, 250.2533, 60.0445	
266 Cer (t18:1/24:1)	C42 H81 N O4	16.02	69.30	-5.37	664.6238	664.6203	646.6081, 628.6009, 610.5899, 316.2840, 298.2740, 280.2635, 262.2534, 250.2534, 60.0445	
<b>267 Cer (t18:1/24:2)</b>	<b>C42 H79 N O4</b>	<b>16.38</b>	<b>85.64</b>	<b>1.95</b>	<b>662.6082</b>	<b>662.6066</b>	<b>644.5780, 626.5889, 316.2825, 298.2740, 280.2626, 262.2524, 250.2533, 60.0443</b>	
268 Cer (t18:1/25:0)	C43 H85 N O4	17.92	89.09	-1.61	680.6551	680.6538	662.6423, 644.6316, 626.6167, 316.2841, 298.2737, 280.2636, 262.2533, 250.2534, 60.0444	
269 Cer (t18:1/25:1)	C43 H83 N O4	16.75	70.78	1.09	678.6395	678.6358	660.6205, 642.6185, 316.2843, 298.2730, 280.2629, 262.2528, 250.2533, 60.0439	
<b>270 Cer (t18:1/25:2)</b>	<b>C43 H81 N O4</b>	<b>17.03</b>	<b>62.43</b>	<b>-0.21</b>	<b>676.6238</b>	<b>676.6210</b>	<b>658.6035, 316.2874, 298.2738, 280.2636, 262.252, 250.2522, 60.0444</b>	
<b>271 Cer (t18:1/28:2)</b>	<b>C46 H87 N O4</b>	<b>18.82</b>	<b>74.21</b>	<b>-5.47</b>	<b>718.6708</b>	<b>718.6671</b>	<b>700.6501, 316.3009, 298.2650, 280.2623, 262.2535, 250.2530, 60.0446</b>	
<b>272 Cer (t19:1/18:2)</b>	<b>C37 H69 N O4</b>	<b>13.13</b>	<b>60.05</b>	<b>0.69</b>	<b>592.5299</b>	<b>592.5319</b>	<b>574.5200, 556.5060, 538.4960, 330.3001, 312.2902, 294.2776, 276.2682, 264.2690, 60.0444</b>	
<b>273 Cer (t19:1/18:4)</b>	<b>C37 H65 N O4</b>	<b>12.43</b>	<b>69.84</b>	<b>4.72</b>	<b>588.4986</b>	<b>588.5018</b>	<b>570.4809, 552.5144, 540.4658, 330.2678, 312.2711, 294.2750, 276.2686, 264.2661, 60.0444</b>	
<b>274 Cer (t19:1/24:3)</b>	<b>C43 H79 N O4</b>	<b>16.48</b>	<b>63.51</b>	<b>0.95</b>	<b>674.6082</b>	<b>674.6109</b>	<b>656.5833, 638.6259, 312.2902, 294.2796, 276.2683, 264.2689, 60.0444</b>	
<b>275 Cer (t18:1/14:0(OH))</b>	<b>C32 H63 N O5</b>	<b>10.60</b>	<b>84.32</b>	<b>-4.34</b>	<b>542.4779</b>	<b>542.4758</b>	<b>524.4441, 506.4253, 316.2635, 298.2735, 280.2637, 262.2541,</b>	

								<b>250.2532, 60.0444</b>		
276 Cer (t18:1/16:0(OH))	C34 H67 N O5	11.65	98.64	-0.48	570.5092	570.5090	552.5002, 534.4891, 516.4795, 498.4646, 316.2839, 298.2745, 280.2638, 262.2539, 250.2532, 60.0446			
<b>277 Cer (t18:1/17:1(OH))</b>	<b>C35 H67 N O5</b>	<b>10.88</b>	<b>69.44</b>	<b>2.17</b>	<b>582.5092</b>	<b>582.5083</b>	<b>564.4905, 546.4905, 528.4662, 510.4205, 316.2708, 298.2720, 280.2633, 262.2536, 250.2218, 60.0438</b>			
278 Cer (t18:1/18:0(OH))	C36 H61 N O5	12.78	93.94	0.01	598.5405	598.5408	580.5296, 562.5184, 544.5077, 526.4997, 316.2731, 298.2731, 280.2628, 262.2527, 250.2529, 60.0439			
<b>279 Cer (t18:1/18:1(OH))</b>	<b>C36 H69 N O5</b>	<b>11.80</b>	<b>80.41</b>	<b>1.31</b>	<b>596.5249</b>	<b>596.5253</b>	<b>578.5137, 560.5027, 542.4910, 524.4786, 316.2838, 298.2731, 280.2626, 262.2529, 250.2523, 60.0439</b>			
<b>280 Cer (t18:1/18:2(OH))</b>	<b>C36 H67 N O5</b>	<b>11.31</b>	<b>76.49</b>	<b>-0.25</b>	<b>594.5092</b>	<b>594.5089</b>	<b>576.4935, 558.4820, 316.2872, 298.2740, 280.2632, 262.2531, 250.2535, 60.0444</b>			
281 Cer (t18:1/20:0(OH))	C38 H75 N O5	13.94	98.20	-0.72	626.5718	626.5714	608.5597, 590.5487, 572.5378, 554.5298, 316.2840, 298.2738, 280.2635, 262.2532, 250.2534, 60.0444			
<b>282 Cer (t18:1/20:1(OH))</b>	<b>C38 H73 N O5</b>	<b>12.91</b>	<b>81.77</b>	<b>3.62</b>	<b>624.5562</b>	<b>624.5544</b>	<b>606.5258, 588.5149, 570.5020, 558.4867, 316.2678, 298.2537, 280.2629, 262.2524, 250.2495, 60.0439</b>			
283 Cer (t18:1/21:0(OH))	C39 H77 N O5	14.54	95.50	-1.21	640.5875	640.5867	622.5744, 604.5642, 586.5536, 568.5433, 316.2847, 298.2737, 280.2631, 262.2534, 250.2532, 60.0444			
284 Cer (t18:1/22:0(OH))	C40 H79 N O5	15.20	99.54	-0.08	654.6031	654.6029	636.5919, 618.5810, 600.5713, 582.5578, 316.2846, 298.2743, 280.2639, 262.2537, 250.2534, 60.0446			
285 Cer (t18:1/22:1(OH))	C40 H77 N O5	14.18	75.26	-3.01	652.5875	652.5872	634.5772, 616.5650, 598.5531, 580.5426, 316.2847, 298.2741, 280.2636, 262.2534, 250.2533, 60.0445			
<b>286 Cer (t18:1/22:2(OH))</b>	<b>C40 H75 N O5</b>	<b>13.31</b>	<b>79.69</b>	<b>2.01</b>	<b>650.5718</b>	<b>650.5719</b>	<b>632.5596, 614.5493, 596.5443, 578.5311, 316.2829, 298.2727, 280.2643, 262.2515, 250.2188, 60.0438</b>			

287	Cer (t18:1/23:0(OH))	C41 H81 N O5	15.90	98.18	0.04	668.6188	668.6186	650.6073, 632.5966, 614.5859, 596.5749, 316.2842, 298.2743, 280.2638, 262.2535, 250.2532, 60.0446
288	Cer (t18:1/23:1(OH))	C41 H79 N O5	14.85	99.57	0.34	666.6031	666.6034	648.5920, 630.5808, 612.5697, 600.5321, 594.5572, 316.2837, 298.2740, 280.2635, 262.2534, 250.253, 60.0445
289	Cer (t18:1/24:0(OH))	C42 H83 N O5	16.43	98.79	-0.04	682.6344	682.6344	664.6237, 646.6129, 628.6019, 610.5907, 316.2845, 298.2748, 280.2642, 262.2537, 250.2535, 60.0445
290	Cer (t18:1/24:1(OH))	C42 H81 N O5	15.50	75.04	-6.75	680.6188	680.6139	662.6078, 644.5969, 626.5858, 608.5744, 316.2844, 298.2744, 280.2640, 262.2538, 250.2533, 60.0446
<b>291</b>	<b>Cer (t18:1/24:2(OH))</b>	<b>C42 H79 N O5</b>	<b>15.76</b>	<b>70.31</b>	<b>-1.28</b>	<b>678.6031</b>	<b>678.6025</b>	<b>660.5742, 642.5699, 316.2881, 298.2753, 280.2623, 262.2536, 250.2531, 60.0445</b>
292	Cer (t18:1/25:0(OH))	C43 H85 N O5	17.20	99.74	-0.16	696.6501	696.6498	678.6384, 660.6277, 642.6169, 624.6067, 612.6059, 316.2839, 298.2742, 280.2637, 262.2535, 250.2531, 60.0445
293	Cer (t18:1/25:1(OH))	C43 H83 N O5	16.20	90.26	-3.91	694.6344	694.6318	676.6216, 658.6117, 640.6023, 622.5935, 610.5932, 316.2849, 298.2743, 280.2636, 262.2536, 250.2534, 60.0445
<b>294</b>	<b>Cer (t18:1/25:2(OH))</b>	<b>C43 H81 N O5</b>	<b>16.41</b>	<b>79.78</b>	<b>0.90</b>	<b>692.6188</b>	<b>692.6172</b>	<b>674.6149, 316.2841, 298.2736, 280.2631, 262.2531, 250.2528, 60.0444</b>
295	Cer (t18:1/26:0(OH))	C44 H87 N O5	17.97	94.21	0.28	710.6657	710.6655	692.6539, 674.6427, 656.6334, 638.6195, 316.2841, 298.2740, 280.2634, 262.2532, 250.2534, 60.0445
296	Cer (t18:1/24:0(OH)) isomer	C42 H83 N O5	16.70	91.89	-3.09	682.6344	682.6363	316.2832, 298.2739, 280.2632, 262.2535, 250.2535, 60.0445
<b>297</b>	<b>Cer (t19:1/16:0(OH))</b>	<b>C35 H69 N O5</b>	<b>12.38</b>	<b>73.27</b>	<b>-2.15</b>	<b>584.5249</b>	<b>584.5251</b>	<b>566.5127, 548.5035, 530.4901, 512.4839, 330.3000, 312.2896, 294.2784, 276.2682, 264.2679, 60.0444</b>
<b>298</b>	<b>Cer (t19:1/18:0(OH))</b>	<b>C37 H73 N O5</b>	<b>13.62</b>	<b>98.14</b>	<b>-0.08</b>	<b>612.5562</b>	<b>612.5563</b>	<b>594.5453, 576.5334, 558.5239, 540.5070, 330.2995, 312.2898, 294.2788, 276.2685, 264.2682, 60.0444</b>
<b>299</b>	<b>Cer (t14:1/25:5(tOH))</b>	<b>C39 H67 N O7</b>	<b>13.47</b>	<b>96.18</b>	<b>1.13</b>	<b>662.4990</b>	<b>662.5003</b>	<b>644.4842, 206.1907, 194.1889, 60.0444</b>

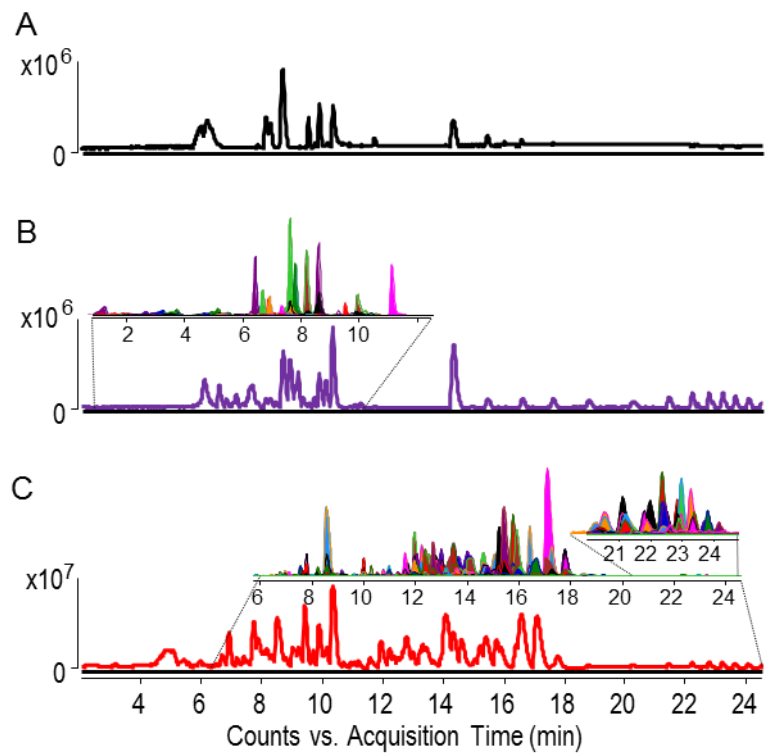
300 Cer (t14:1/22:1(tOH))	C36 H69 N O7	13.52	93.45	-0.88	628.5147	628.5139	610.5070, 592.4891, 224.1960, 206.1904, 194.1867, 60.0446
301 Cer (t18:1/23:5(tOH))	C41 H71 N O7	15.62	96.85	1.61	690.5303	690.5315	672.5053, 654.5093, 298.2734, 280.2632, 262.2542, 250.2532, 60.0445
302 Cer (t20:0/33:5(tOH))	C53 H95 N O7	20.40	84.46	-0.20	858.7181	858.7198	840.6983, 328.3243, 310.3140, 292.3008, 280.2970, 60.0444
303 Cer (d16:0/35:1(dOH))	C51 H101 N O5	17.57	88.25	-2.28	808.7753	808.7726	790.7624, 772.7514, 754.7339, 742.6503, 292.3002, 274.2732, 256.2636, 60.0444
304 Cer (t14:1/16:1(dOH))	C30 H57 N O6	10.45	88.75	-4.41	528.4259	528.4237	510.4143, 492.4048, 224.2005, 206.1907, 194.1899, 60.0443
305 Cer (t14:1/16:0(dOH))	C30 H59 N O6	10.52	78.15	-7.13	530.4415	530.4378	512.4034, 242.2020, 224.2008, 206.1905, 194.1910, 60.0444
306 Cer (t14:1/22:1(dOH))	C36 H69 N O6	14.23	89.45	-2.04	612.5198	612.5184	594.4955, 206.1907, 60.0444
307 Cer (t14:1/24:3(dOH))	C38 H69 N O6	12.25	79.78	4.05	636.5198	636.5215	618.5123, 600.4934, 224.1984, 206.1905, 194.1917, 60.0445
308 Cer (t14:1/25:3(dOH))	C39 H71 N O6	12.40	85.88	4.23	650.5354	650.5378	632.4836, 614.5106, 596.4895, 206.1908, 194.1917, 60.0444
309 Cer (t14:1/26:0(dOH))	C40 H79 N O6	13.18	85.82	1.13	670.5980	670.5986	652.5095, 224.2007, 206.1906, 60.0442
310 Cer (t18:0/23:4(dOH))	C41 H75 N O6	12.68	75.74	-1.98	678.5667	678.5640	660.5306, 642.5226, 624.5197, 606.5229, 588.5120, 282.2790, 264.2688, 252.2674, 60.0446
311 Cer (t18:0/42:1(dOH))	C60 H117 N O6	25.19	93.66	-2.24	948.8954	948.8931	930.8809, 912.8630, 894.8682, 318.3006, 300.2897, 282.2790, 264.2683, 252.2694, 60.0445
312 Cer (t18:1/24:0(dOH))	C42 H83 N O6	15.20	89.04	-0.56	698.6293	698.6294	680.6160, 662.6006, 644.5878, 626.5221, 298.2730, 280.2628, 262.2537, 250.2530, 60.0444
313 Cer (t18:1/29:2(dOH))	C47 H89 N O6	17.30	84.29	1.08	764.6763	764.6775	746.6444, 728.6761, 298.2732, 280.2635, 262.2530, 250.2518, 60.0443
314 Cer (t18:1/42:1(dOH))	C60 H115 N O6	24.50	84.68	-2.25	946.8797	946.8772	928.8625, 910.8667, 316.2841, 298.2740, 280.2623, 262.2525, 250.2535, 60.0442
315 Cer (d18:2/16:1)	C34 H63 N O3	12.25	97.16	0.17	534.4881	534.4880	280.2631, 262.2531, 250.2532, 60.0445
316 Cer (d18:2/16:2)	C34 H61 N O3	11.65	71.45	0.24	532.4724	532.4732	514.4609, 496.4503, 484.4485, 298.2506, 280.2633, 262.2533, 250.2532, 60.0444

317 Cer (d18:2/16:3)	C34 H59 N O3	11.61	63.60	3.70	530.4568	530.4543	298.2545, 280.2631, 262.2532, 250.2530, 60.0444
318 Cer (d18:2/18:2)	C36 H65 N O3	13.25	70.68	-3.52	560.5037	560.5033	542.4927, 524.4891, 280.2626, 262.2525, 250.2527, 60.0438
319 Cer (d18:2/18:3)	C36 H63 N O3	12.82	88.60	-3.35	558.4881	558.4860	540.4748, 280.2629, 262.2538, 250.2534, 60.0445
320 Cer (d18:2/18:4)	C36 H61 N O3	12.00	80.97	4.51	556.4724	556.4700	538.4693, 298.2719, 280.2615, 262.2525, 60.0439
321 Cer (d18:2/20:4)	C38 H65 N O3	12.76	69.46	7.36	584.5037	584.4994	566.4892, 262.2528, 250.1914, 60.0438
322 Cer (d18:2/20:5)	C38 H63 N O3	10.80	70.99	1.35	582.4881	582.4878	298.2728, 280.2620, 262.2522, 250.2531, 60.0438
323 Cer (d18:2/21:6)	C39 H63 N O3	11.90	67.85	2.25	594.4881	594.4871	298.2737, 280.2622, 262.2519, 250.2525, 60.0438
324 Cer (d18:2/22:2)	C40 H73 N O3	16.05	62.40	0.06	616.5663	616.5636	598.5538, 568.5054, 298.2556, 280.2603, 262.2536, 250.2544, 60.0445
325 Cer (d18:2/22:3)	C40 H71 N O3	15.32	80.34	-4.22	614.5507	614.5483	596.5360, 566.5336, 280.2640, 262.2526, 250.2562, 60.0443
326 Cer (d18:2/22:5)	C40 H67 N O3	11.80	81.34	-3.89	610.5194	610.522	592.5096, 574.4995, 298.2544, 280.2623, 262.2520, 250.2536, 60.0438
327 Cer (d18:2/23:2)	C41 H75 N O3	16.64	70.34	1.23	630.5820	630.5814	298.2717, 280.2628, 262.2519, 250.2534, 60.0437
328 Cer (d18:2/23:3)	C41 H73 N O3	16.10	80.09	4.40	628.5663	628.5636	610.5100, 280.2624, 262.2528, 250.2525, 60.0444
329 Cer (d18:2/23:5)	C41 H69 N O3	12.38	76.57	-4.00	624.5350	624.5379	606.5288, 588.5229, 280.2615, 262.2545, 250.2152, 60.4380
330 Cer (d18:2/23:5) isomer	C41 H69 N O3	12.68	76.00	-4.83	624.5350	624.5385	606.5261, 588.5153, 576.5145, 298.2692, 280.2668, 262.2523, 250.2538, 60.0438
331 Cer (d18:2/23:6)	C41 H67 N O3	11.88	74.18	-5.81	622.5194	622.5232	604.5097, 586.4975, 298.2719, 280.2618, 262.2653, 250.2506, 60.0438
332 Cer (d18:2/24:2)	C42 H77 N O3	17.28	62.12	0.47	644.5976	644.5946	626.5802, 298.2727, 280.2618, 262.2527, 250.2538, 60.0445
333 Cer (d18:2/24:3)	C42 H75 N O3	16.76	71.64	4.65	642.5820	642.5793	624.5718, 606.6093, 280.2631, 262.2526, 250.2534, 60.0441
334 Cer (d18:2/24:5)	C42 H71 N O3	12.90	75.36	-3.74	638.5507	638.5537	620.5418, 602.5312, 298.2736, 280.2616, 262.2525, 250.2528, 60.0439
335 Cer (d18:2/25:4)	C43 H75 N O3	14.35	71.55	-0.76	654.5820	654.5842	636.5842, 618.5721, 298.2722, 280.2618, 262.2542, 60.0438
336 Cer (d18:2/25:5)	C43 H73 N O3	13.50	66.86	-3.43	652.5663	652.5705	634.5584, 616.5488, 280.2664, 262.2519, 250.2529, 60.0438
337 Cer (d18:2/26:1)	C44 H83 N O3	19.29	81.79	3.66	674.6446	674.6417	280.2630, 262.2520, 250.2538, 60.0444
338 Cer (d18:2/26:4) isomer	C44 H75 N O3	12.65	84.76	-2.07	666.5820	666.5839	648.5699, 630.6019, 298.2825, 280.2615, 262.2528

339 Cer (d18:2/26:4)	C44 H75 N O3	14.65	84.28	-3.52	666.5820	666.5842	648.5761, 630.5651, 298.2724, 280.2613, 262.2519, 60.0437
<b>340 Cer (d18:2/27:5)</b>	<b>C45 H77 N O3</b>	<b>14.60</b>	<b>67.44</b>	<b>-6.98</b>	<b>680.5976</b>	<b>680.6025</b>	<b>662.5883, 644.5798, 298.2722, 280.2623, 262.2522, 250.2533, 60.0438</b>
<b>341 Cer (d18:2/27:6)</b>	<b>C45 H75 N O3</b>	<b>13.80</b>	<b>66.51</b>	<b>-5.37</b>	<b>678.5820</b>	<b>678.5849</b>	<b>660.5730, 642.5627, 298.2722, 280.2631, 262.2530, 250.2154, 60.0439</b>
<b>342 Cer (d18:2/28:5)</b>	<b>C46 H79 N O3</b>	<b>15.10</b>	<b>71.25</b>	<b>-4.67</b>	<b>694.6133</b>	<b>694.6169</b>	<b>676.6053, 658.5963, 298.2730, 280.2623, 262.2525, 250.2523, 60.0438</b>
<b>343 Cer (d18:2/29:5)</b>	<b>C47 H81 N O3</b>	<b>15.65</b>	<b>75.84</b>	<b>-4.36</b>	<b>708.6289</b>	<b>708.6324</b>	<b>690.6200, 672.6090, 298.2757, 280.2621, 262.2526, 250.2538, 60.0438</b>
<b>344 Cer (d18:2/29:6)</b>	<b>C47 H79 N O3</b>	<b>14.80</b>	<b>75.21</b>	<b>-5.34</b>	<b>706.6133</b>	<b>706.6174</b>	<b>688.6041, 670.5932, 298.2761, 280.2622, 262.2523, 250.2517, 60.0438</b>
<b>345 Cer (d18:2/32:5)</b>	<b>C50 H87 N O3</b>	<b>16.97</b>	<b>80.75</b>	<b>-2.99</b>	<b>750.6759</b>	<b>750.6785</b>	<b>732.6651, 714.6544, 298.2742, 280.2615, 262.2526, 60.0437</b>
<b>346 Cer (d18:2/32:6)</b>	<b>C50 H85 N O3</b>	<b>16.00</b>	<b>80.28</b>	<b>-2.62</b>	<b>748.6602</b>	<b>748.6627</b>	<b>730.6497, 712.6394, 298.2758, 280.2614, 262.2520, 60.0435</b>

\* 171 SPLs that were bolded in table were identified in this study firstly.

**Figure S1.** Base peak chromatograms (BPC) of blank sample (A), sphingoid base fraction (B) and ceramide fraction (C). The extracted compound chromatograms (labeled above BPC) obtained on UHPLC-UHD-Q-TOF-MS after separation of sphingoid base and ceramide fractions by using silica gel and amino silica gel column chromatographies.



**Figure S2.** Comparison of extracted ion chromatographies (EICs) of representative SPLs in samples before and after silica gel and amino silica gel column chromatographies separation.

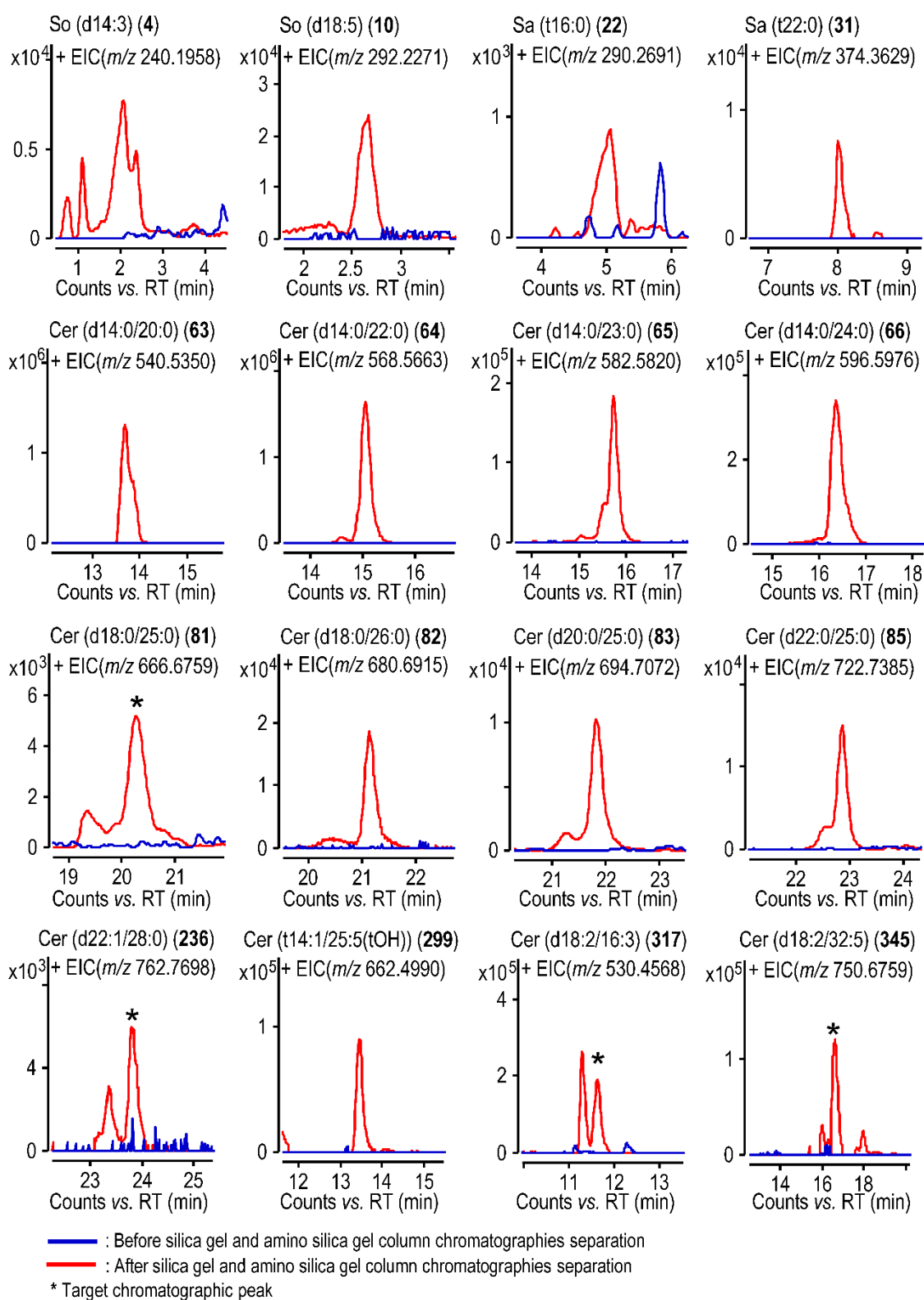
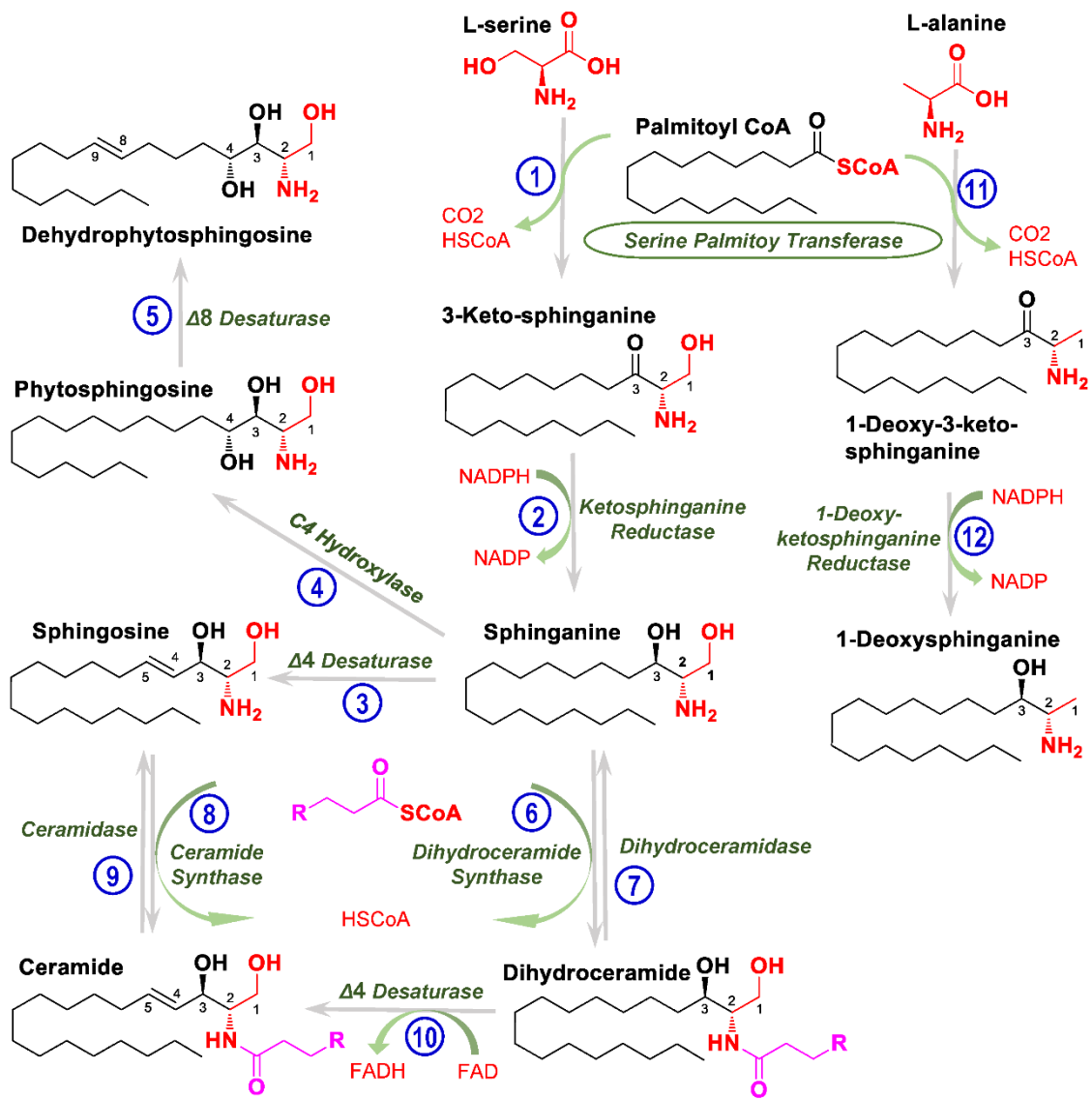
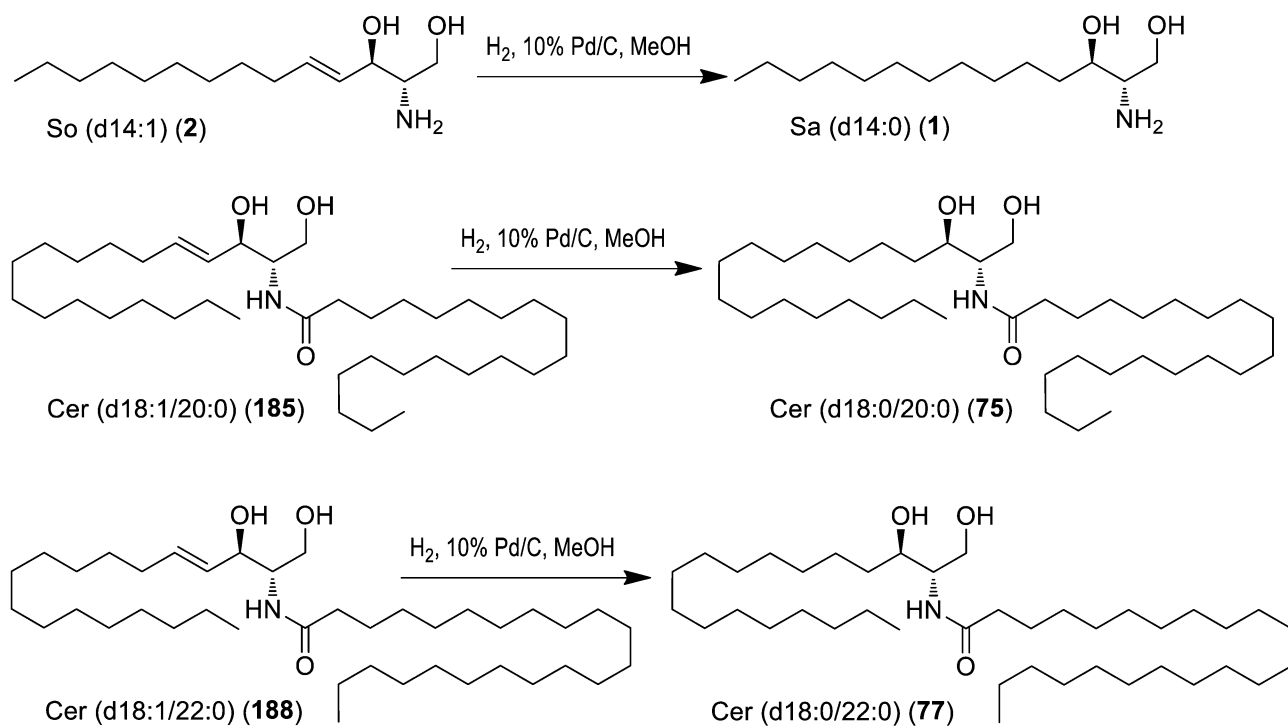




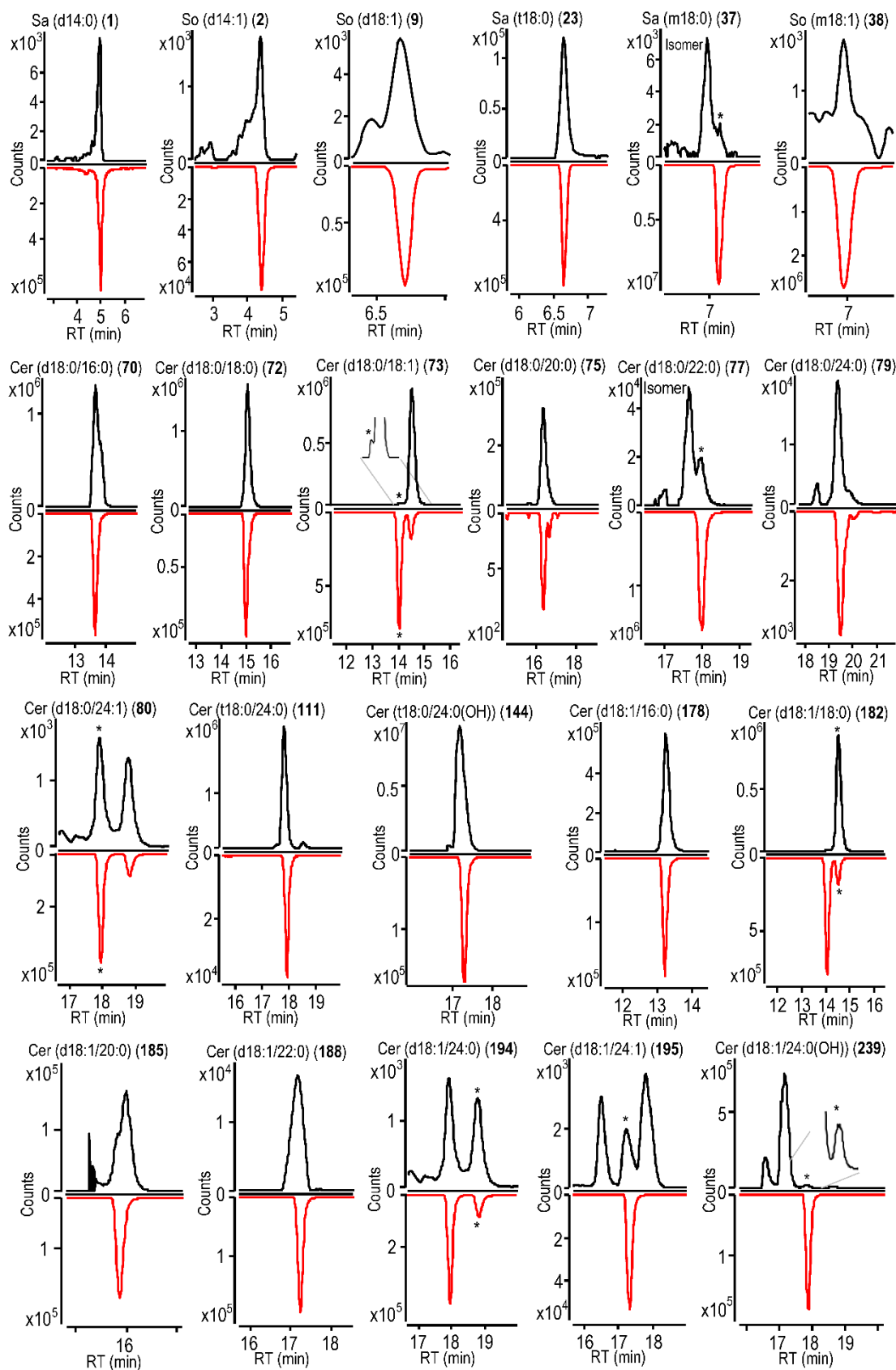
Figure S3. The *de novo* sphingolipid biosynthetic pathway.



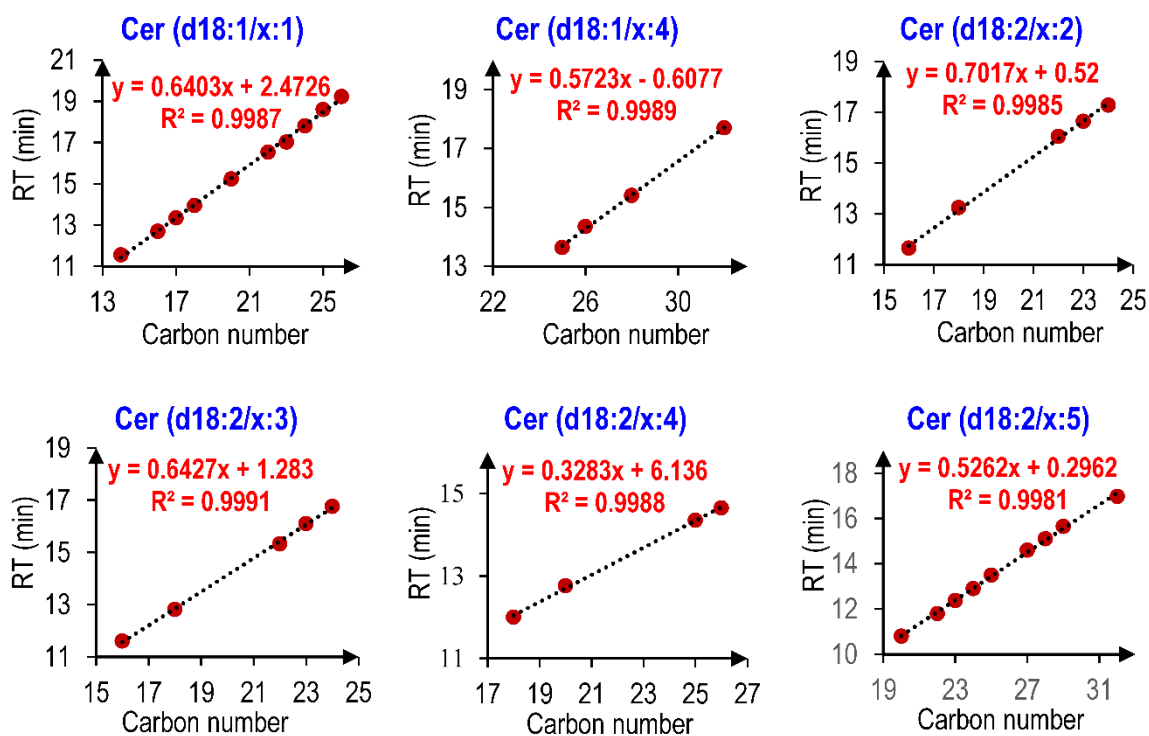
**Figure S4.** The synthetic reactions of 3 SPLs in this work. Hydrogenation ( $H_2$ , 10% Pd/C, MeOH) of the unsaturated SPL standards afforded saturated SPLs which were identified by UHPLC-UHD-Q-TOF-MS.



**Figure S5.** Comparison of the UHPLC RT values between 6 sphingoid bases and 16 ceramides in wild Cordyceps and corresponding SPL standards.



**Figure S6.** The chromatographic retention time rule of ceramides. X-axis stands for the number of carbon atoms in N-acyl chain of ceramides; Y-axis stands for retention time.



**Figure S7.** Effects of FTY720 and sphingoid base and ceramide fractions on the proliferation inhibition ratio in LPS-induced mouse splenic lymphocytes (A) and Con A-induced mouse splenic lymphocytes (B). Data were presented as the mean  $\pm$  SD of five independent experiments.

