

Supplementary Materials: Anabaenopeptins from cyanobacteria in freshwater bodies of Greece

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Table S1. List of Anabaenopeptins reported in the literature and their amino acid sequence.

	Name	<i>m/z</i> [M+H] ⁺	Amino acids sequence							Ref.
			1 (Side chain)	Ureido linkage	2	3	4	5	6	
1	Anabaenopeptin 679	678.3618 [M-H] ⁻	NH ₂	CO	Lys	Val	Hty	MeAla	Phe	[1]
2	Anabaenopeptin 731	732.3922	Phe	CO	Lys	Val	Leu	MeGly	AcSer	[2]
3	Anabaenopeptin I	760.4618	Ile	CO	Lys	Val	Hty	MeAla	Leu	[3]
4	Nostamide C	778.4497	Ile	CO	Lys	Val	Hph	MeAla	Phe	[4]
5	Nostamide D	778.4498	Val	CO	Lys	Ile	Hph	MeAla	Phe	[4]
6	Nostamide E	778.4498	Ile	CO	Lys	Ile	Hph	Ala	Phe	[4]
7	Anabaenopeptin 788	789.4425	Val	CO	Lys	Val	Trp	MeAla	Phe	[5]
8	Schizopeptin 791	792	Ile	CO	Lys	Ile	Hph	MeAla	Phe	[6]
9	Anabaenopeptin J	794.4462	Ile	CO	Lys	Val	Hty	MeAla	Phe	[3]
10	Anabaenopeptin 802A	803.4417	Val	CO	Lys	Ile	Trp	MeAla	Phe	[7]
11	Anabaenopeptin 802B	803	Arg	CO	Lys	Val	Hty	MeAla	Leu/Ile	[8]
12	Anabaenopeptin 802C	803.4417	Val	CO	Lys	Leu	Trp	MeAla	Phe	[5]
13	Anabaenopeptin 803	804.4353	Leu/Ile	CO	Lys	Met	Leu	Melle	Met(O)	[2]
14	Nostamide B	806.4810	Ile	CO	Lys	Ile	Hph	MeAla	Hph	[4]
15	Nodulapeptin 807	808	Ile	CO	Lys	Val	Hph	MeHph	Ser	[9]
16	Anabaenopeptin 807	808	Ile	CO	Lys	Ile	Hty	MeAla	Phe	[10]
17	Anabaenopeptin 808	808	Ile	CO	Lys	Val	Hty	MeAla	Hph	[11]
18	Anabaenopeptin C	809.4629	Lys	CO	Lys	Val	Hty	MeAla	Phe	[12, 13]
19	Anabaenopeptin 809	810	Tyr	CO	Lys	Val	Hty	MeAla	Leu/Ile	[8]
20	Anabaenopeptin KVJ841	812.4348	Tyr	CO	Lys	Ile	Hph	MeGly	Hph	[14]
21	Paltolide A	812.4783	Arg	CO	Lys	Ala	Leu	Leu	Trp	[15]
22	Anabaenopeptin 813	814	Phe	CO	Lys	Val	Hty	MeGly	Phe	[16]
23	Anabaenopeptin 816	817.4425	Ile/Leu	CO	Lys	Ile/Leu	Trp	MeAla	Phe	[5]
24	Anabaenopeptin 820	821.47	Arg	CO	Lys	Val	Hph	MeAla	Phe	[17]
25	Nodulapeptin 821	822	Ile	CO	Lys	Ile	Hph	MeHph	Ser	[9]
26	Anabaenopeptin SA3	823.4718	Lys	CO	Lys	Ile	HTy	Ala	Phe	[18]
27	Anabaenopeptin 824 / Nodulapeptin 823	824	Ile	CO	Lys	Val	Hph	MeHty	Ser	[11, 16]
28	Anabaenopeptin 827 A	828	Tyr	CO	Lys	Val	Hph	MeAla	Phe	[8]
29	Anabaenopeptin 827 B	828.38	Phe	CO	Lys	Val	Hph	Ala	Hty	[19]
30	Anabaenopeptin KVJ827	828.4282	Tyr	CO	Lys	Val	Hph	MeGly	Hph	[14]
31	Anabaenopeptin D	828.4563	Phe	CO	Lys	Val	Hty	MeAla	Phe	[12, 13]
32	Anabaenopeptin 834	835.31	Ile/Leu	CO	Lys	Val	Hph	MeAsn	Hph	[19]
33	Anabaenopeptin SA6	835.4718	Ile	CO	Lys	Ile	Hph	Asn	Phe	[18]
34	Anabaenopeptin SA5	835.4718	Ile	CO	Lys	Val	PNV	Asn	Phe	[18]
35	Anabaenopeptin B	837.4629	Arg	CO	Lys	Val	Hty	MeAla	Phe	[20]
36	Anabaenopeptin 837	838.3	OEtGlu	CO	Lys	Val	Hty	MeAla	Phe	This study
37	Nodulapeptin 839	840	Ile	CO	Lys	Met	Hph	MeHph	Ser	[9]
38	Nostamide A	842	Phe	CO	Lys	Ile	Hph	MeGly	Hty	[21]
39	Anabaenopeptin 841A	842	Phe	CO	Lys	Ile	Hty	MeAla	Phe	[10]
40	Anabaenopeptin 841B	842.4416	Phe	CO	Lys	Val	Hph	MeAla	Hty	[7]
41	Anabaenopeptin KVJ811	842.4449	Phe	CO	Lys	Val	Hph	MeGly	Hph	[14]

42	Paltolide B	842.4888	Arg	CO	Lys	Ala	Leu	MeLeu	OHTrp	[15]
43	Anabaenopeptin 842	842.7	Tyr	CO	Lys	Ile/Leu	Hph	MeAla	Phe	[22]
44	Anabaenopeptin SA12	844.4245	Phe	CO	Lys	Val	HTy	Gly	HTy	[18]
45	Anabaenopeptin A	844.4263	Tyr	CO	Lys	Val	Hty	MeAla	Phe	[20]
46	Anabaenopeptin MM823	846.4056 [M+Na] ⁺	OMeGlu	CO	Lys	Val	Hty	MeAla	Phe	[23]
47	Anabaenopeptin 848	849.34	Ile/Leu	CO	Lys	Val	MeHph	MeAsn	Hph	[19]
48	Anabaenopeptin 848	849.4872	Leu	CO	Lys	Ile	MeHph	MeAsn	Phe	[7]
49	Anabaenopeptin SA7	849.4875	Ile	CO	Lys	Ile	PNV	Asn	Phe	[18]
50	Nodulapeptin 849	850	Ile	CO	Lys	Val	Hph	MeHph	AcSer	[9]
51	Anabaenopeptin 849	850.4818	Lys	CO	Lys	Ile	Hph	MeAsn	Phe	[7]
52	Anabaenopeptin E	851.4763	Arg	CO	Lys	Val	MeHty	MeAla	Phe	[24]
53	Anabaenopeptin DA850	851.4774	Arg	CO	Lys	allo-Ile	Hty	MeAla	Phe	[25]
54	Anabaenopeptin B1	851.4779	HArg	CO	Lys	Val	Hty	MeAla	Phe	[26]
55	Anabaenopeptin MM850	851.4794	OMeArg	CO	Lys	Val	Hty	MeAla	Phe	[23]
56	Anabaenopeptin F	851.481	Arg	CO	Lys	Ile	Hty	MeAla	Phe	[24]
57	Nodulapeptin 851	852	Ile	CO	Lys	Val	Hph	MeHph	Met	[8]
58	Anabaenopeptin 851	852.2	OEtGlu	CO	Lys	Leu/Ile	Hty	MeAla	Phe	This study
59	Anabaenopeptin 852	852.8	MeHty	CO	Lys	Val	Hty	MeAla	MeLeu/ Melle	[22]
60	Anabaenopeptin SA2	853.4572	Arg	CO	Lys	Val	HTy	Ser	Phe	[18]
61	Anabaenopeptin 855 B	856	Phe	CO	Lys	Val	Val	MeHty	MetO	[16]
62	Nodulapeptin 855 A	856	Ile	CO	Lys	Met	Hph	MeHty	Ser	[10]
63	Nodulapeptin 855 B	856	Ile	CO	Lys	MetO	Hph	MeHph	Ser	[10]
64	Anabaenopeptin 855 A	856.4561	Phe	CO	Lys	Ile	Hph	MeAla	Hty	[7]
65	Anabaenopeptin 856	856.7	MeHty	CO	Lys	Val	Hph	MeAla	Phe	[22]
66	Oscillamide Y	858.4396	Tyr	CO	Lys	Ile	Hty	MeAla	Phe	[27]
67	Anabaenopeptin 857 A	858.4405	Phe	CO	Lys	Val	Hty	MeAla	Hty	[7]
68	Nodulapeptin 857 /Anabaenopeptin 857 B	858	Phe	CO	Lys	Val	Hph	MeHty	Ser	[9, 16]
69	Brunsvicamide B	859.5063	Ile	CO	Lys	Ile	Leu	MeTrp	Phe	[28]
70	Anabaenopeptin SA13	860.4194	Tyr	CO	Lys	Val	HTyr	Ser	Phe	[18]
71	Mozamide A	861.4875	Ile	CO	Lys	Val	Leu	Me-5'- hydroxyT rp	Phe	[29]
72	Anabaenopeptin 862 A	863.26	Ile/Leu	CO	Lys	Val	EtHph	MeAsn	Hph	[19]
73	Anabaenopeptin 862 B	863.5028	Leu	CO	Lys	Ile	EtHph	MeAsn	Phe	[7]
74	Anabaenopeptin SA8	863.5031	Ile	CO	Lys	Ile	PNL	Asn	Phe	[18]
75	Nodulapeptin 863	864	Ile	CO	Lys	Ile	Hph	MeHph	AcSer	[9]
76	Anabaenopeptin NZ825	864.4036 [M+K] ⁺	Phe	CO	Lys	Ile	Hph	MeGly	Hph	[30]
77	Lyngbyaureidamide B	864.4255 [M+Na] ⁺	Phe	CO	Lys	Ile	Hty	MeAla	Phe	[31]
78	Anabaenopeptin NZ841	864.4337 [M+Na] ⁺	Phe	CO	Lys	Ile	Hty	MeGly	Hph	[30]
79	Anabaenopeptin 863	864.4972	Lys	CO	Lys	Ile	MeHph	MeAsn	Phe	[7]
80	Anabaenopeptin SA4	864.4984	Lys	CO	Lys	Ile	PNV	Asn	Phe	[18]
81	Anabaenopeptin 864	865.3	Ile/Leu	CO	Lys	Val	MeHph	MeAsn	Hty	[19]
82	Anabaenopeptin KT864	865.4963	Harg	CO	Lys	Ile	Hty	MeAla	Phe	[32]
83	Nodulapeptin 865	866	Ile	CO	Lys	Val	Hph	MeHty	AcSer	[9]
84	Anabaenopeptin T	866.5076	Ile	CO	Lys	Val	Hty	MeHty	Ile	[33]
85	Anabaenopeptin 866	866.7	MeHty	CO	Lys	Ile/Leu	Hty	MeAla	MeLeu/ Melle	[22]
86	Ferintoic acid A	867.4417	Trp	CO	Lys	Val	Hty	MeAla	Phe	[34]
87	Brunsvicamide A	867.4764 [M+Na] ⁺	Ile	CO	Lys	Val	Leu	MeTrp	Phe	[28]

88	Anabaenopeptin 868	868	Ile	CO	Lys	MetO	Hty	MeHt	Met	[11]
89	Nodulapeptin 867	868	Ile	CO	Lys	Val	Hph	MeHty	Met	[9]
90	Oscillamide B	869.4324	Arg	CO	Lys	Met	Hty	MeAla	Phe	[35]
91	Nodulapeptin 869	870	Phe	CO	Lys	Val	Leu	MeHty	MetO	[16]
92	Anabaenopeptin 869	870.16	Tyr	CO	Lys	Ile/Leu	Hph	MeAla	MeHph	[19]
93	Anabaenopeptin 870	870.7	MeHty	CO	Lys	Ile/Leu	Hph	MeAla	Phe	[22]
94	[Ser ⁶] Nodulapeptin B	872	Ile	CO	Lys	MetO	Hph	MeHty	Ser	[21]
95	Anabaenopeptin 871	872.4544	Phe	CO	Lys	Ile	Hty	MeAla	Hty	[7]
96	Anabaenopeptin 872	872.6	MeHty	CO	Lys	Val	Hty	MeAla	Phe	[22]
97	Mozamide B	875.5031	Ile	CO	Lys	Ile	Leu	Me-5'-hydroxy Trp	Phe	[29]
98	Anabaenopeptin SA9	876.4062	Phe	CO	Lys	Ile	ClHTy	Gly	Hph	[18]
99	Anabaenopeptin 876	877.16	Ile/Leu	CO	Lys	Ile/Leu	EtHph	MeAsn	Hph	[19]
100	Konbamide	877.3824	Leu	CO	Lys	Ala	Leu	MeLeu	BhTrp	[36]
101	Anabaenopeptin SA10	878.3855	Phe	CO	Lys	Val	HTy	Gly	ClHTyr	[18]
102	Lyngbyaureidamide A	878.4426 [M+Na] ⁺	Phe	CO	Lys	Ile	Hty	MeAla	Hph	[31]
103	Anabaenopeptin 877A	878.4864	Agr	CO	Lys	Ile	Hph	MeAsn	Phe	[7]
104	Anabaenopeptin 877B	878.5122	Lys	CO	Lys	Ile	EtHph	MeAsn	Phe	[7]
105	Nodulapeptin 879	880	Ile	CO	Lys	Ile	Hph	MeHty	AcSer	[10]
106	Anabaenopeptin NZ857	880.4269 [M+Na] ⁺	Phe	CO	Lys	Ile	Hty	MeGly	Hty	[30]
107	Ferintoic acid B	881.4567	Trp	CO	Lys	allo-Ile	Hty	MeAla	Phe	[34]
108	Nodulapeptin 881 A	882	Ile	CO	Lys	Met	Hph	MeHph	AcSer	[10]
109	Nodulapeptin 881 B	882	Ile	CO	Lys	Ile	Hph	MeHty	Met	[10]
110	Anabaenopeptin 882	883.4695	Phe	CO	Lys	Ile	MeHph	MeAsn	Phe	[7]
111	Nodulapeptin 883 A	884	Ile	CO	Lys	Met	Hph	MeHph	Met	[10]
112	Nodulapeptin 883 B	884	Phe	CO	Lys	Val	Hph	MeHph	AcSer	[10]
113	Nodulapeptin 883 C	884	Ile	CO	Lys	Val	Hph	MeHty	MetO	[9]
114	Anabaenopeptin 884	884	Ile	CO	Lys	Val	Hph	MeHty	AcSer	[11]
115	Nodulapeptin 885	886	Phe	CO	Lys	Val	Hph	MeHph	Met	[9]
116	Anabaenopeptin 886	886.7	MeHty	CO	Lys	Ile/Leu	Hty	MeAla	Phe	[22]
117	Anabaenopeptin SA1	890.4888	Arg	CO	Lys	Ile	PNV	Asn	Phe	[18]
118	Anabaenopeptin SA11	892.4012	Phe	CO	Lys	Ile	HTy	Gly	ClHTyr	[18]
119	Anabaenopeptin 891	892.5023	Arg	CO	Lys	Ile	MeHph	MeAsn	Phe	[7]
120	Anabaenopeptin HU892	893.5284	Arg	CO	Lys	Val	Hph	MeHty	Ile	[37]
121	Anabaenopeptin 894	895.6	Lys	CO	Lys	Leu/Ile	Hty	MeHty	Leu/Ile	This study
122	Anabaenopeptin 896	897.4858	Phe	CO	Lys	Ile	EtHph	MeAsn	Phe	[7]
123	[MeHph ⁵] Nodulapeptin B	898	Ile	CO	Lys	MetO	Hph	MeHph	AcSer	[21]
124	Nodulapeptin C	898	Ile	CO	Lys	Met	Hph	MeHty	AcSer	[21]
125	Brunsvicamide C	899.4692 [M+Na] ⁺	Ile	CO	Lys	Val	Leu	Me-formyl kyn	Phe	[28]
126	Nodulapeptin 899 / Anabaenopeptin 900	900	Phe	CO	Lys	Val	Hph	MeHty	AcSer	[11, 38]
127	Nodulapeptin 899 B	900	Ile	CO	Lys	Val	Hty	MeHty	MetO	[16]
128	[Met ⁶] Nodulapeptin C	900	Ile	CO	Lys	Met	Hph	MeHty	Met	[21]
129	Anabaenopeptin 899	900.6	Phe	CO	Lys	Val	Hty	MeHty	Ile	[39]
130	Anabaenopeptin 900	900.7	MeHty	CO	Lys	Ile/Leu	Hty	MeAla	MePhe/Hph	[22]
131	Nodulapeptin 901 / Anabenopeptin 902	902	Phe	CO	Lys	Val	Hph	MeHty	Met	[11, 38]
132	Paltolide C	904.4044	Arg	CO	Lys	Ala	Leu	MeLeu	BrTrp	[15]
133	Anabaenopeptin 905	906.5196	Arg	CO	Lys	Ile	EtHph	MeAsn	Phe	[7]
134	Anabaenopeptin 906	907	Arg	CO	Lys	Ile	MeHty	MeLeu	Phe	[40]
135	Anabaenopeptin KB906	907.5417	Arg	CO	Lys	Ile	Hph	MeHty	Ile	[41]

136	Anabaenopeptin G (1)	909	Arg	CO	Lys	Ile	Hty	MeLeu	Tyr	[42]
137	Anabaenopeptin 908	909.5198	Arg	CO	Lys	Val	Hty	MeHty	Ile	[43]
138	Nodulapeptin B	914.4438	Ile	CO	Lys	Met(O)	Hph	MeHty	AcSer	[44]
139	Anabaenopeptin MM913	914.5031	Tyr	CO	Lys	Ile	Hph	MeHty	Ile	[23]
140	Nodulapeptin 915 A	916	Ile	CO	Lys	MetO	Hph	MeHty	Met	[10]
141	Nodulapeptin 915 B / Anabenopeptin 916	916	Phe	CO	Lys	Val	Hty	MeHty	AcSer	[10, 11]
142	Anabaenopeptin 915	916.4828	Tyr	CO	Lys	Val	Hty	MeHty	Ile	[43]
143	Nodulapeptin 917 / Anabaenopeptin 918	918	Phe	CO	Lys	Val	Hph	MeHty	MetO	[11, 38]
144	Anabaenopeptin KB899	922.4693 [M+Na] ⁺	Tyr	CO	Lys	Val	Hph	MeHty	Ile	[41]
145	Anabaenopeptin H	923.5352	Arg	CO	Lys	Ile	Hty	MeHty	Ile	[45]
146	Keramamide L	927.4541	Phe	CO	Lys	Leu	Leu	MeCTrp	Phe	[46]
147	Oscillamide H	930	Tyr	CO	Lys	Melle	Ile	MeHty	Ile	[16]
148	Nodulapeptin A	930.4297	Ile	CO	Lys	Met(O2)	Hph	MeHty	AcSer	[44]
149	Anabaenopeptin G (2)	930.4974	Tyr	CO	Lys	Ile	Hty	MeHty	Ile	[45]
150	Nodulapeptin 931	932	Ile	CO	Lys	MetO	Hph	MeHty	MetO	[10]
151	Nodulapeptin 933	934	Phe	CO	Lys	Val	Hty	MeHty	MetO	[10]
152	(-)-Psymbamide A	937.4181	Ile	CO	Lys	Leu	Leu	Me-5'- BrTrp	Phe	[47]
153	Keramamide A	943.4485	Phe	CO	Lys	Leu	Leu	MeCht	Phe	[48]
154	Oscillamide C	957.5198	Arg	CO	Lys	Ile	Hty	MeHty	Phe	[35]
155	Pompanopeptin B	958.529	Ile	CO	Lys	Val	Hty	Me Ahpha	Hty	[49]

Ala = alanine, AcSer = acetyl-serine, Arg = arginine, Asn = asparagine, Bh-Trp = 2-bromo-5-hydroxy-tryptophan, Br-Trp = bromo-tryptophan, Cl-Htyr = chloro-homotyrosine, EtHph = ethyl-homophenylalanine, Gly = glycine, Harg = homoarginine, Hphe = homophenylalanine, Hphe/MePhe = homophenylalanine/methyl-phenylalanine (isobaric compounds), Htyr = homotyrosine, Leu/Ile = leucine/isoleucine (isobaric compounds), Lys = lysine, Met = methionine, MetO = methionine sulfoxide, Met(O)2 = methionine sulfone (S-dioxide), Me-5'-BrTrp = methyl-5'-bromo-tryptophan, Me-5'-hydroxyTrp = methyl-5'-hydroxy-tryptophan, MeAhpha = N-methyl -2-amino-6-(hydroxyl phenyl) hexanoic acid, MeAla = methyl-alanine, MeAsn = methyl-asparagine, MeCht = 6-chloro-5-hydroxy-N-methyl-tryptophan, MeCTrp = 6-chloro-N-methyl-tryptophan, Me-formyl kyn = methyl-formyl kynurenine, MeGly = methyl-glycine, MeHph = methyl-homophenylalanine, MeHtyr = methyl-homotyrosine, MeLeu/Melle = methyl-leucine/methyl-isoleucine (isobaric compounds), MeTrp = methyl-tryptophan, OMeArg = arginine methyl ester, OMeGlu = glutamic acid methyl ester, OHTrp = hydroxyl-tryptophan, Phe = phenylalanine, PNV = 5-Phenylnorvaline, PNL = 6-Phenylnorleucine, Ser = serine, Trp = tryptophan, Tyr = Tyrosine, Val = valine.

Table S2. List of the cyanobacterial strains from Greek freshwaters, examined for their ability to produce APs.

Cyanobacterial strain	Growth medium	Maximum growth (day)	Produced APs
<i>Anabaena oscillaroides</i> TAU-MAC 0199	BG11 ₀ *	32	-
<i>Calothrix epiphytica</i> TAU-MAC 0399	BG11 ₀	35	-
<i>Chlorogloeopsis fritschii</i> TAU-MAC 0599	BG11 ₀	30	-
<i>Desmonostoc muscorum</i> TAU-MAC 0699	BG11 ₀	29	-
<i>Jaaginema</i> sp. TAU-MAC 0110	BG11	27	-
<i>Jaaginema</i> sp. TAU-MAC 0210	BG11	27	-
<i>Jaaginema</i> sp. TAU-MAC 2210	BG11	26	-
<i>Limnothrix redekei</i> TAU-MAC 0310	BG11	21	-
<i>Microcystis</i> sp. TAU-MAC 0710	BG11	27	-
<i>Microcystis</i> sp. TAU-MAC 1710	BG11	28	-
<i>Microcystis</i> sp. TAU-MAC 1910	BG11	26	-
<i>Microcystis</i> sp. TAU-MAC 2010	BG11	26	-
<i>Microcystis</i> sp. TAU-MAC 2110	BG11	25	-
<i>Microcystis</i> sp. TAU-MAC 2310	BG11	25	-
<i>Microcystis</i> sp. TAU-MAC 2410	BG11	24	-
<i>Microcystis aeruginosa</i> TAU-MAC 0610	BG11	23	-
<i>Microcystis flos-aquae</i> TAU-MAC 0410	BG11	21	-
<i>Microcystis flos-aquae</i> TAU-MAC 1410	BG11	25	-
<i>Microcystis flos-aquae</i> TAU-MAC 1510	BG11	24	-
<i>Microcystis flos-aquae</i> TAU-MAC 1610	BG11	26	-
<i>Microcystis ichthyoblabe</i> TAU-MAC 0510	BG11	29	Anabaenopeptin A, Oscillamide Y
<i>Microcystis viridis</i> TAU-MAC 1810	BG11	23	-
<i>Nodosilinea</i> sp. TAU-MAC 0104	BG11	29	-
<i>Nostoc</i> sp. TAU-MAC 0799	BG11 ₀	28	-
<i>Nostoc</i> sp. TAU-MAC 0899	BG11 ₀	27	-
<i>Nostoc elgonense</i> TAU-MAC 0299	BG11 ₀	24	-
<i>Nostoc oryzae</i> TAU-MAC 2610	BG11 ₀	27	-
<i>Nostoc oryzae</i> TAU-MAC 2710	BG11 ₀	27	-
<i>Synechococcus</i> sp. TAU-MAC 0499	BG11	29	-
<i>Synechococcus</i> cf. <i>nidulans</i> TAU-MAC 3010	BG11	28	-

* BG11₀ is BG11 without nitrogen.

Lake	Sampling date	<i>Microcystis</i> sp.	<i>Dolichospermum</i> sp.	AP A	AP B	AP F	Osc y	AP 820	AP 842	AP 870	AP 872	AP 886	AP KB906	AP 837	AP 851	AP 894	Number of APs
Amvrakia	10 Aug 1999																4
Amvrakia	19 Aug 1999																1
Amvrakia	19 Aug 1999																3
Kastoria	5 Oct 1995																6
Kastoria	5 Oct 1995																8
Kastoria	3 July 2000																3
Kastoria	20 Sep 2000																4
Kastoria	18 Sep 2014																4
Kastoria	6 Oct 2015																3
Pamvotida	22 July 1999																6
Pamvotida	18 Aug 1999																3
Pamvotida	5 Aug 2000																1
Pamvotida	17 Aug 2000																3
Pamvotida	18 Aug 2000																6
Pamvotida	18 Aug 2000																6
Kerkini	3 Aug 1999																8
Kerkini	26 Aug 1999																6
Zazari	5 Aug 1999																8
Mikri Prespa	5 Aug 1999																6
Mikri Prespa	4 Nov 2014																6
Vistonida	2 Aug 1999																6
Karla	1 July 2015																0
Marathonas	26 Oct 2010																0
% Presence				35	65	87	87	4	26	13	43	57	4	4	4	9	

Figure S1. Anabaenopeptins presence in cyanobacterial blooms of Greek freshwaters and the dominant species.

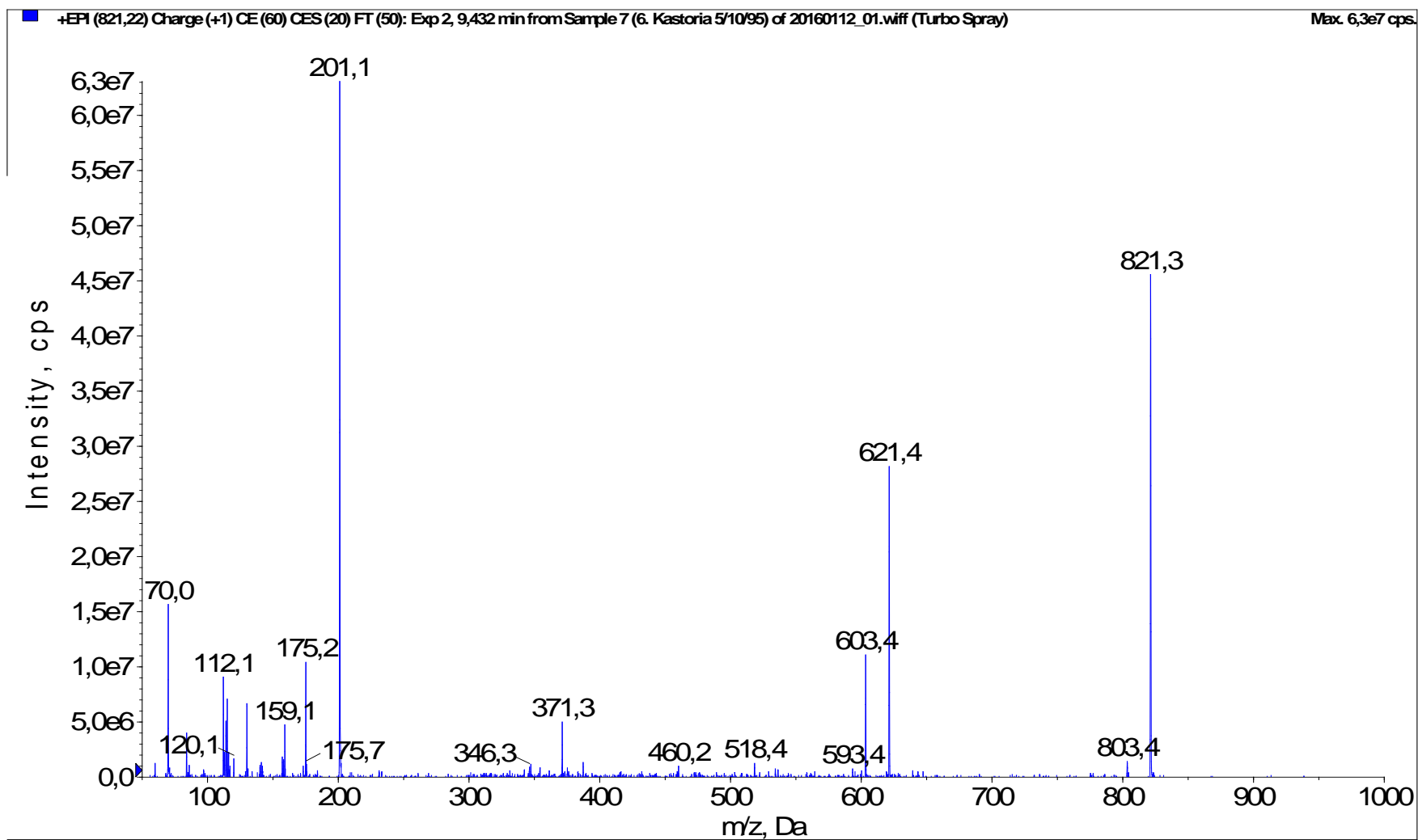


Figure S2. Fragmentation mass spectrum of Anabaenopeptin 820 with precursor ion at m/z 821 $[M + H]^+$.

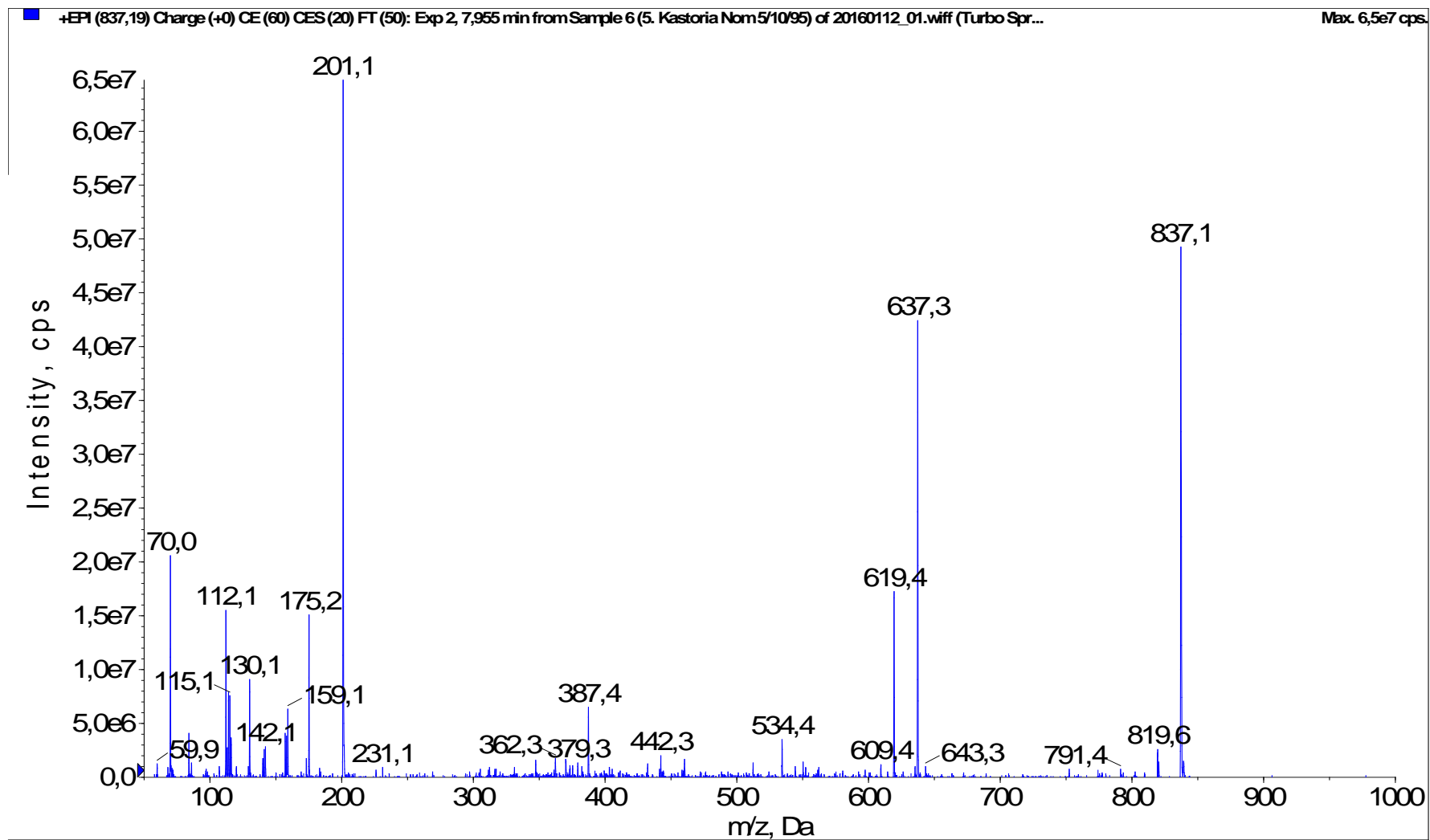


Figure S3. Fragmentation mass spectrum of Anabaenopeptin B with precursor ion at m/z 837 $[M + H]^+$.

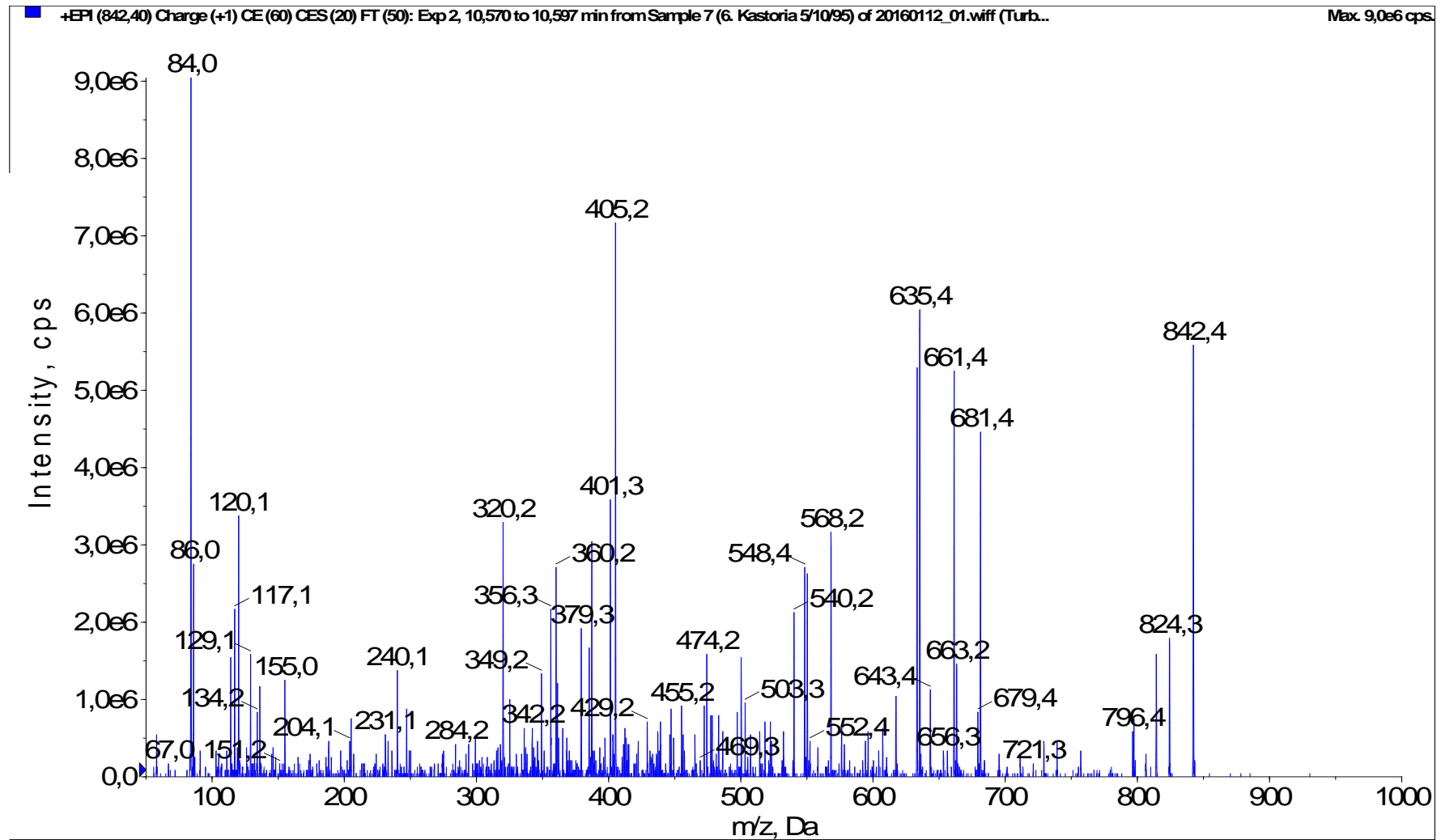


Figure S4. Fragmentation mass spectrum of Anabaenopeptin 842 with precursor ion at m/z 842 $[M + H]^+$.

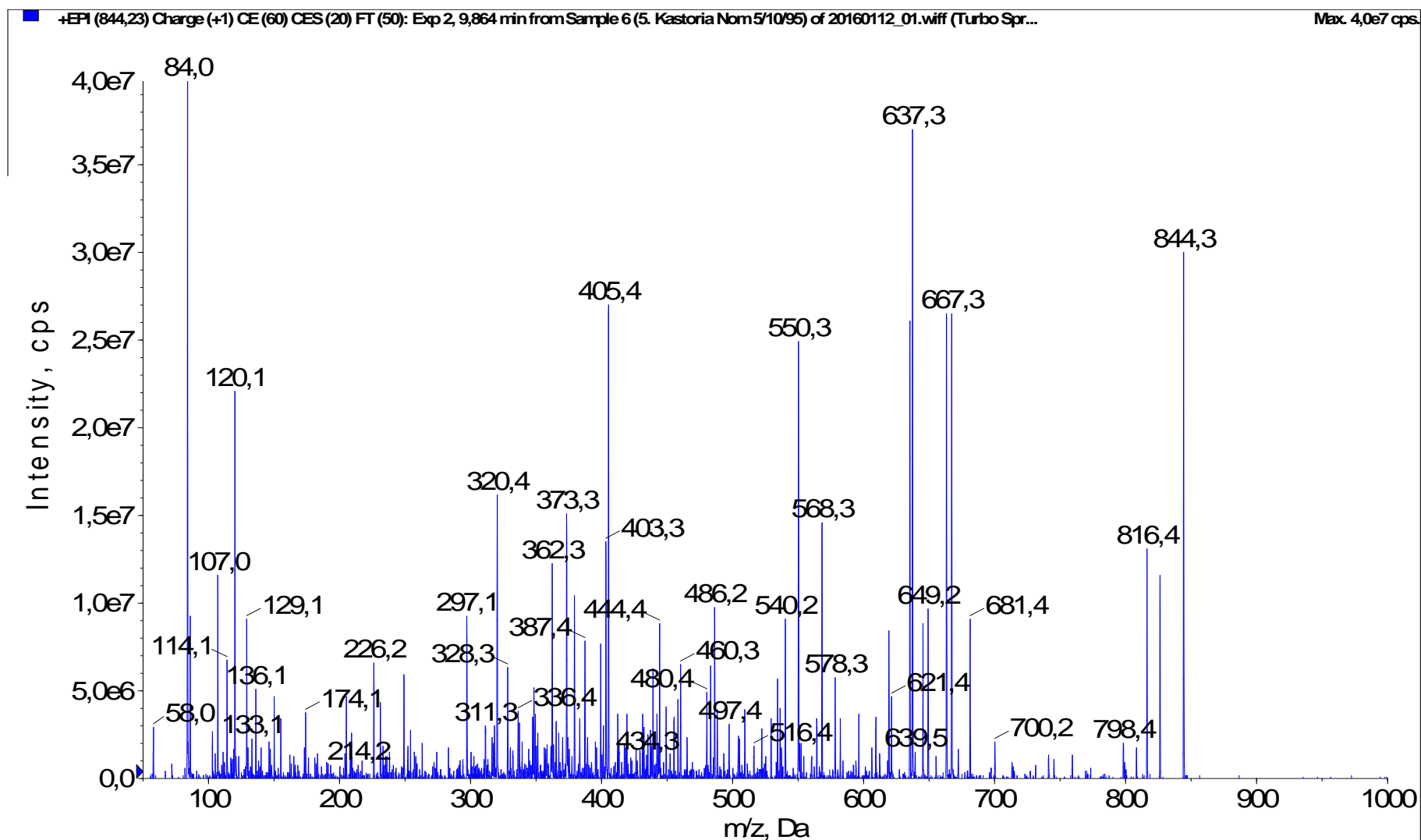


Figure S5. Fragmentation mass spectrum of Anabaenopeptin A with precursor ion at m/z 844 $[M + H]^+$.

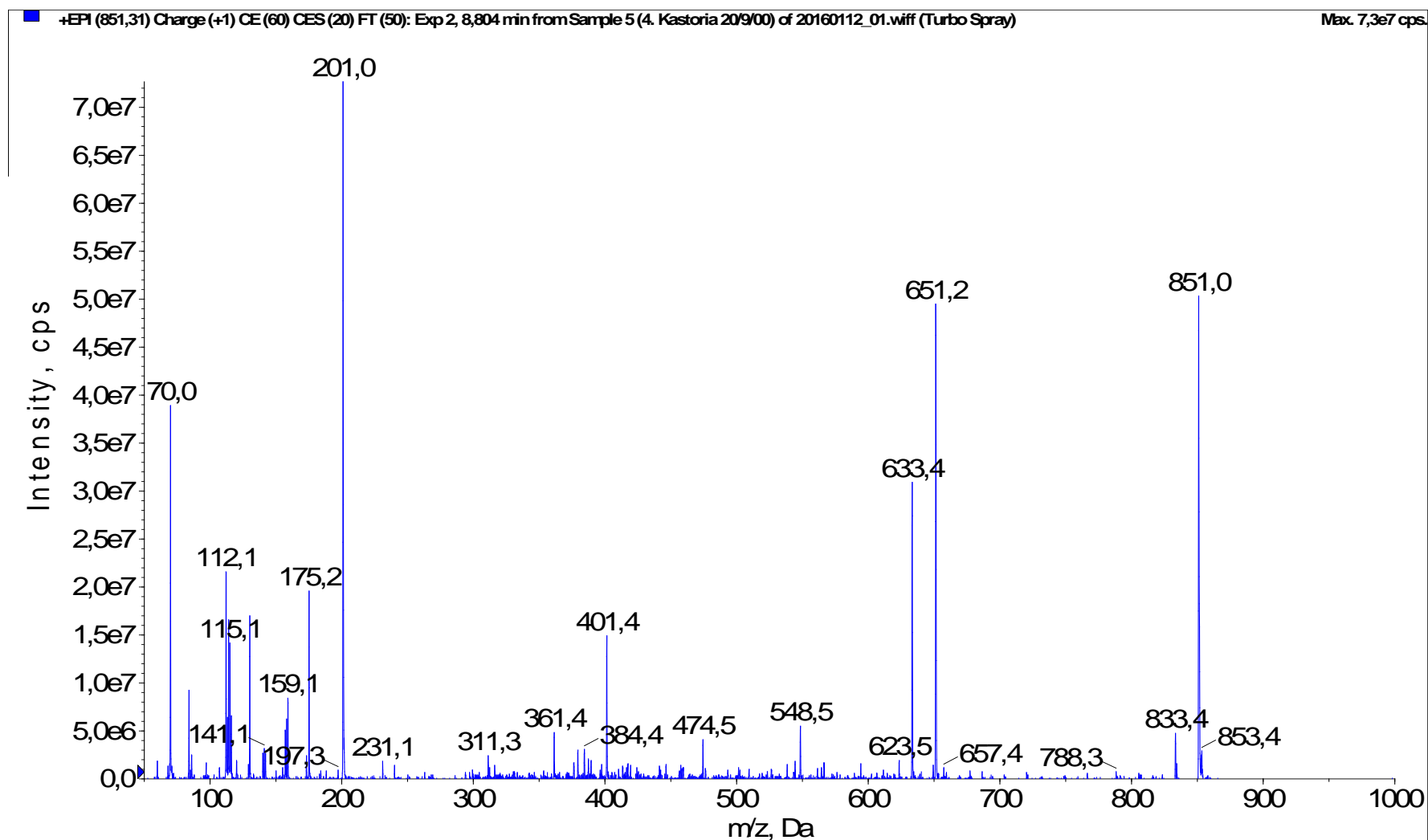


Figure S6. Fragmentation mass spectrum of Anabaenopeptin F with precursor ion at m/z 851 $[M + H]^+$.

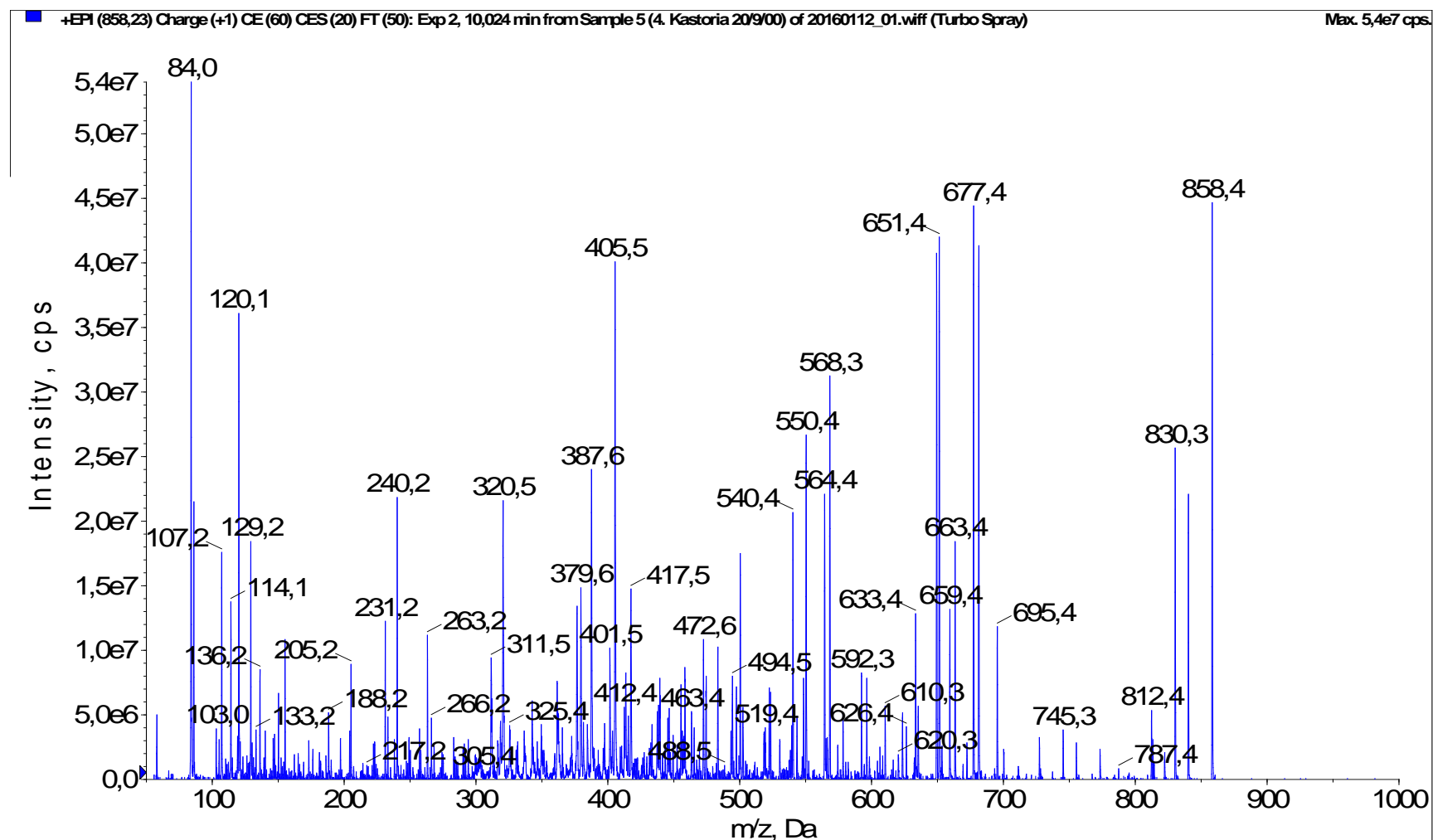


Figure S7. Fragmentation mass spectrum of Oscillamide Y with precursor ion at m/z 858 $[M + H]^+$.

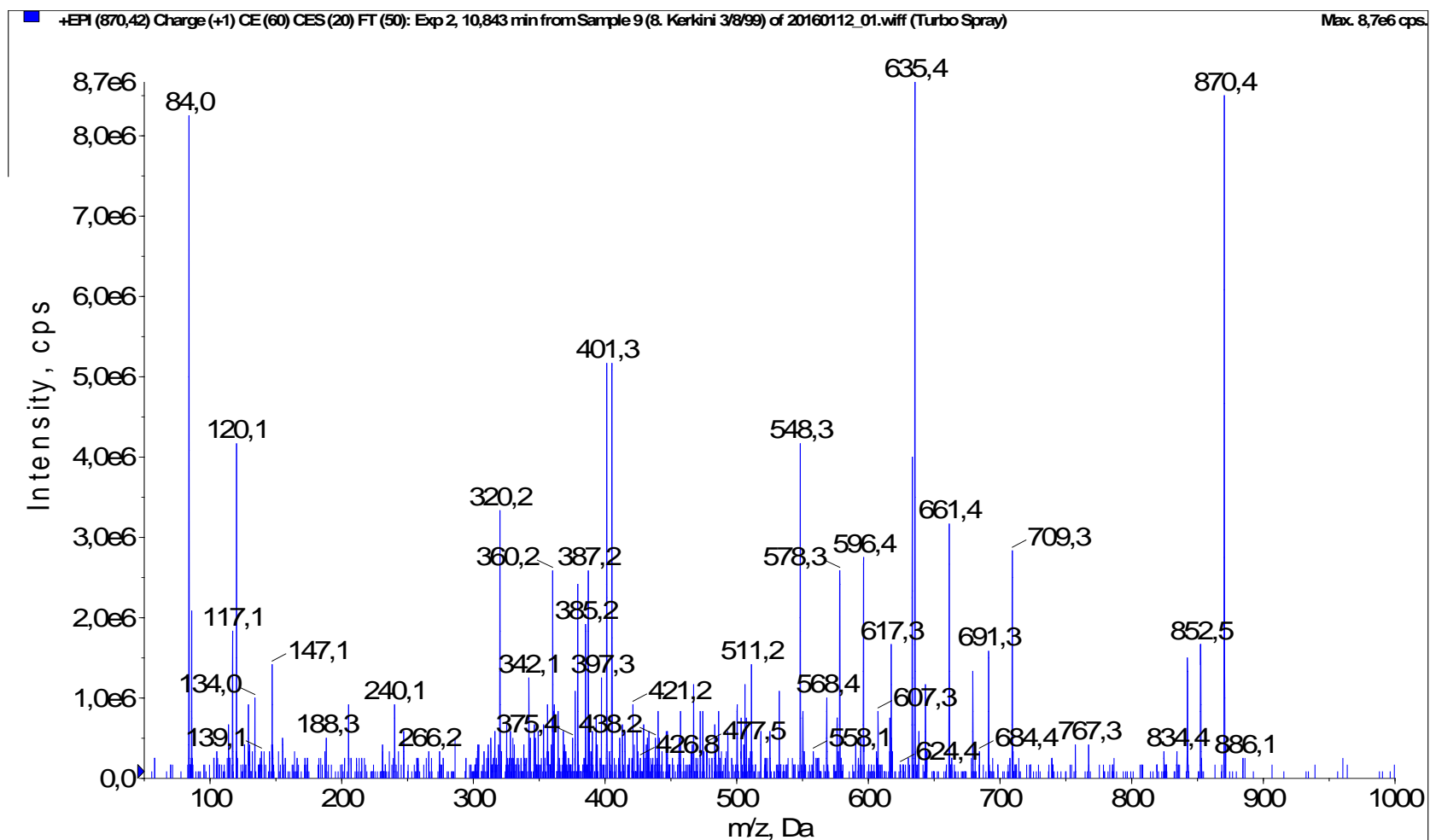


Figure S8. Fragmentation mass spectrum of Anabaenopeptin 870 with precursor ion at m/z 870 $[M + H]^+$.

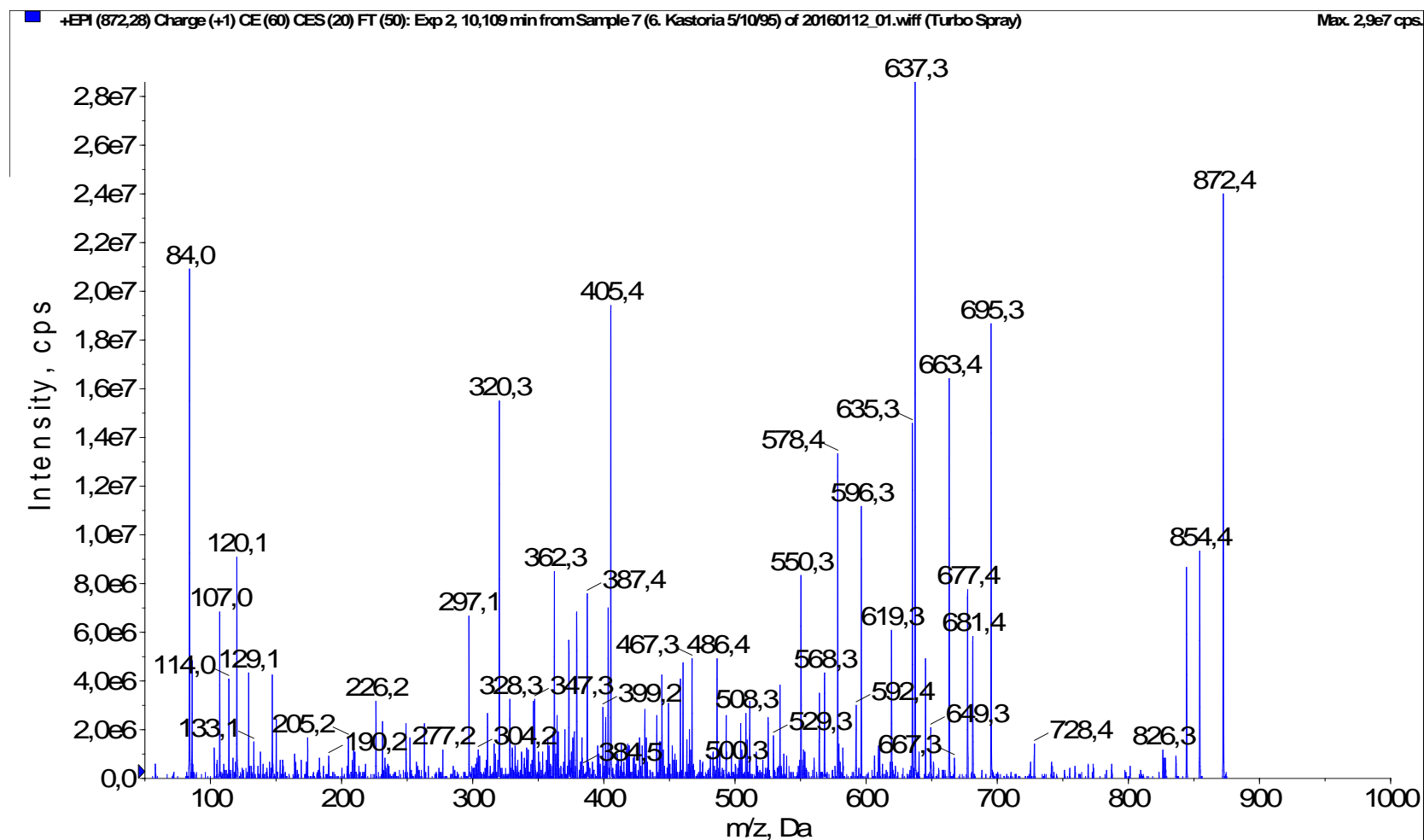


Figure S9. Fragmentation mass spectrum of Anabaenopeptin 872 with precursor ion at m/z 872 $[M + H]^+$.

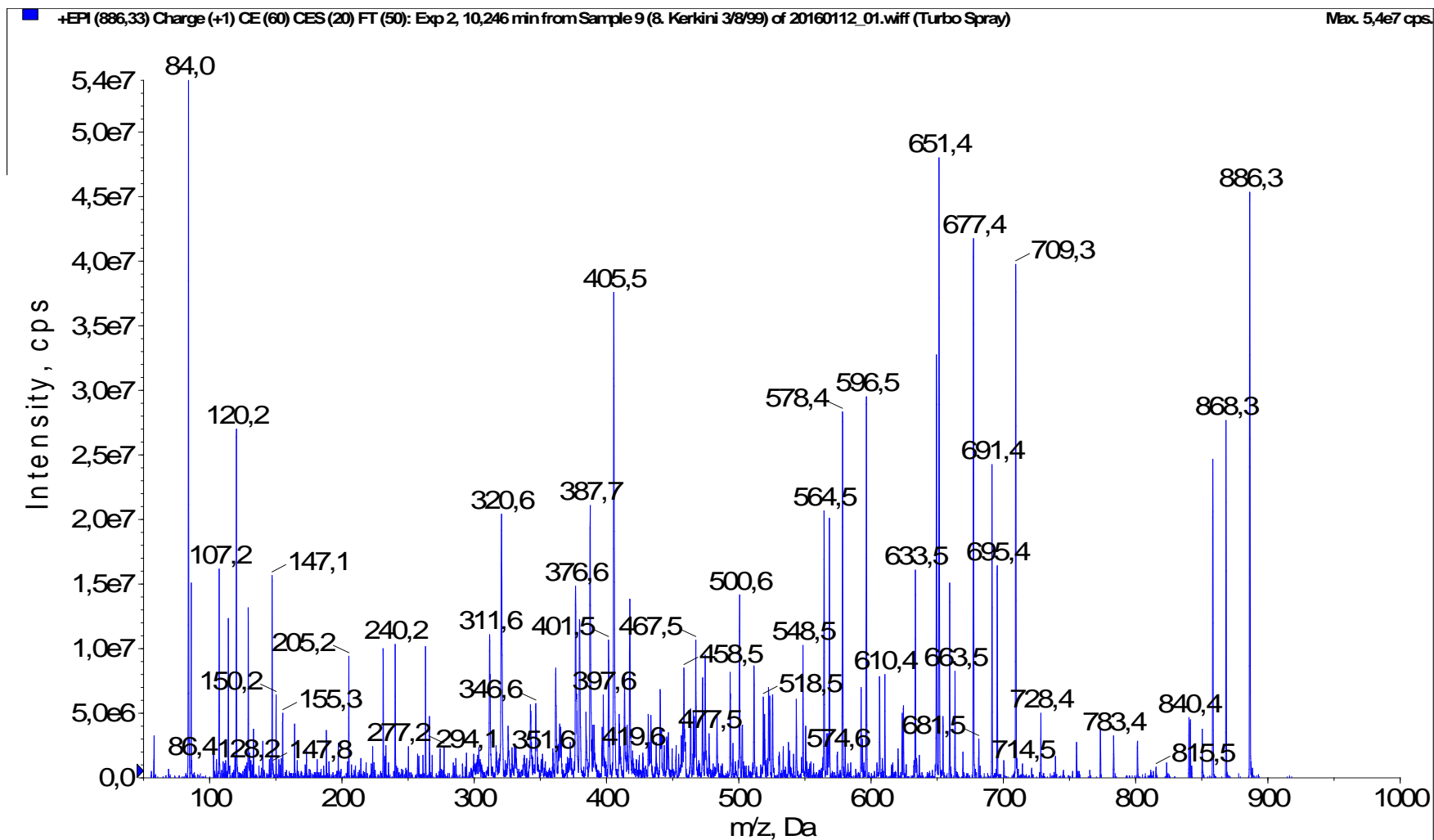


Figure S10. Fragmentation mass spectrum of Anabaenopeptin 886 with precursor ion at m/z 886 $[M + H]^+$.

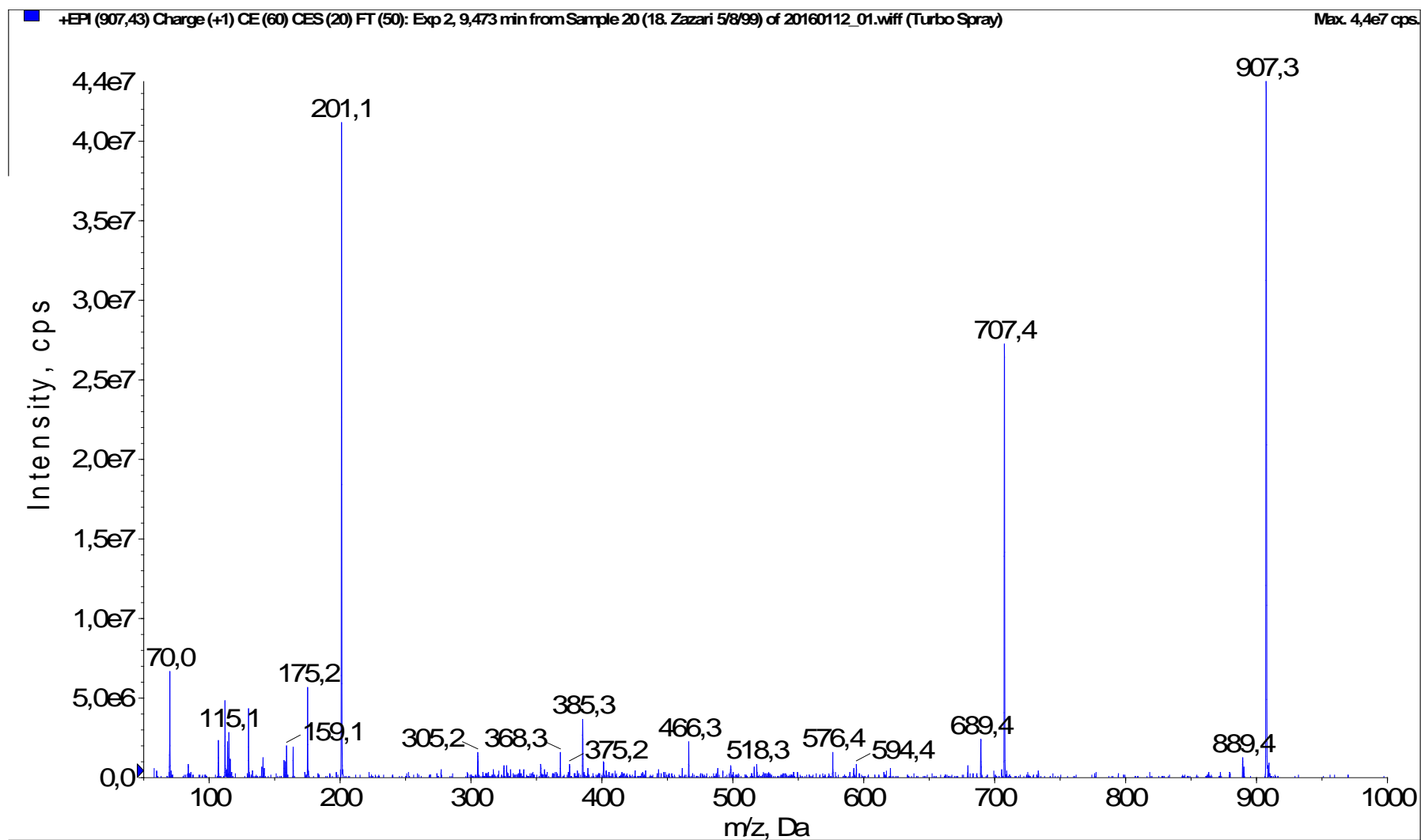


Figure S11. Fragmentation mass spectrum of Anabaenopeptin KB 906 with precursor ion at m/z 907 $[M + H]^+$.

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