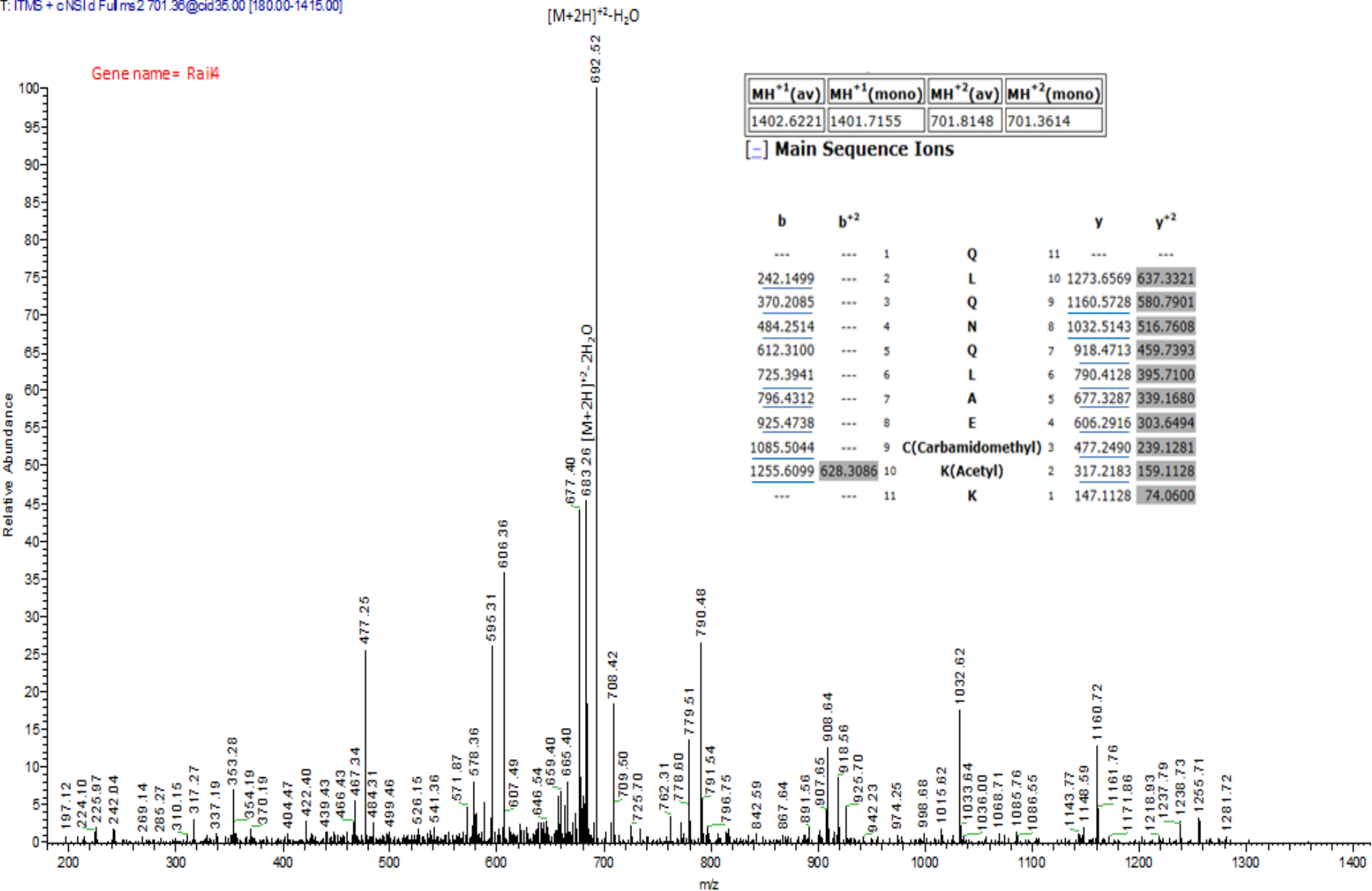


- Q L Q N Q L A E C K K -

b₂ b₃ b₄
b₇ b₈ b₉ b₁₀

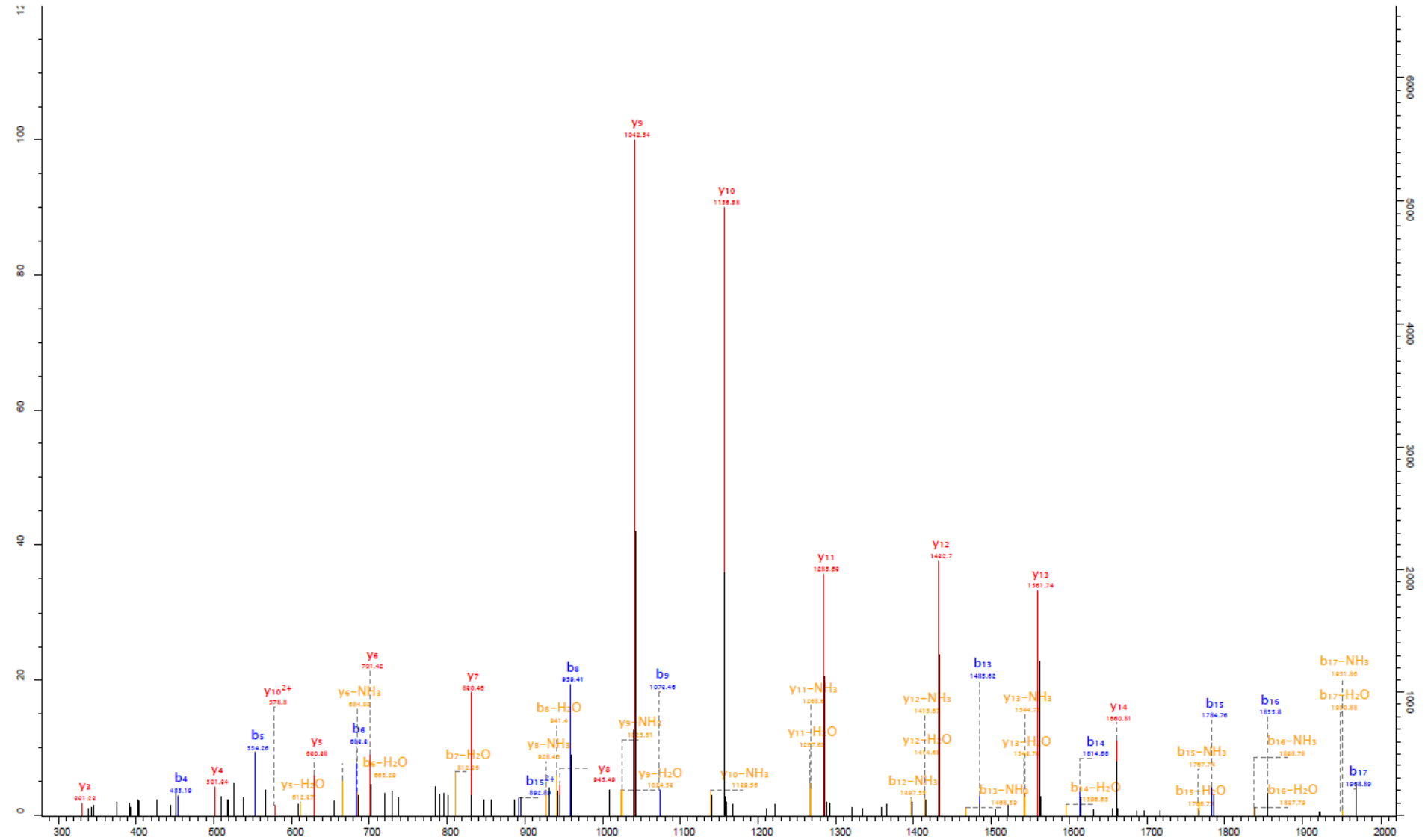
Gene name= Rai4



MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)
1402.6221	1401.7155	701.8148	701.3614

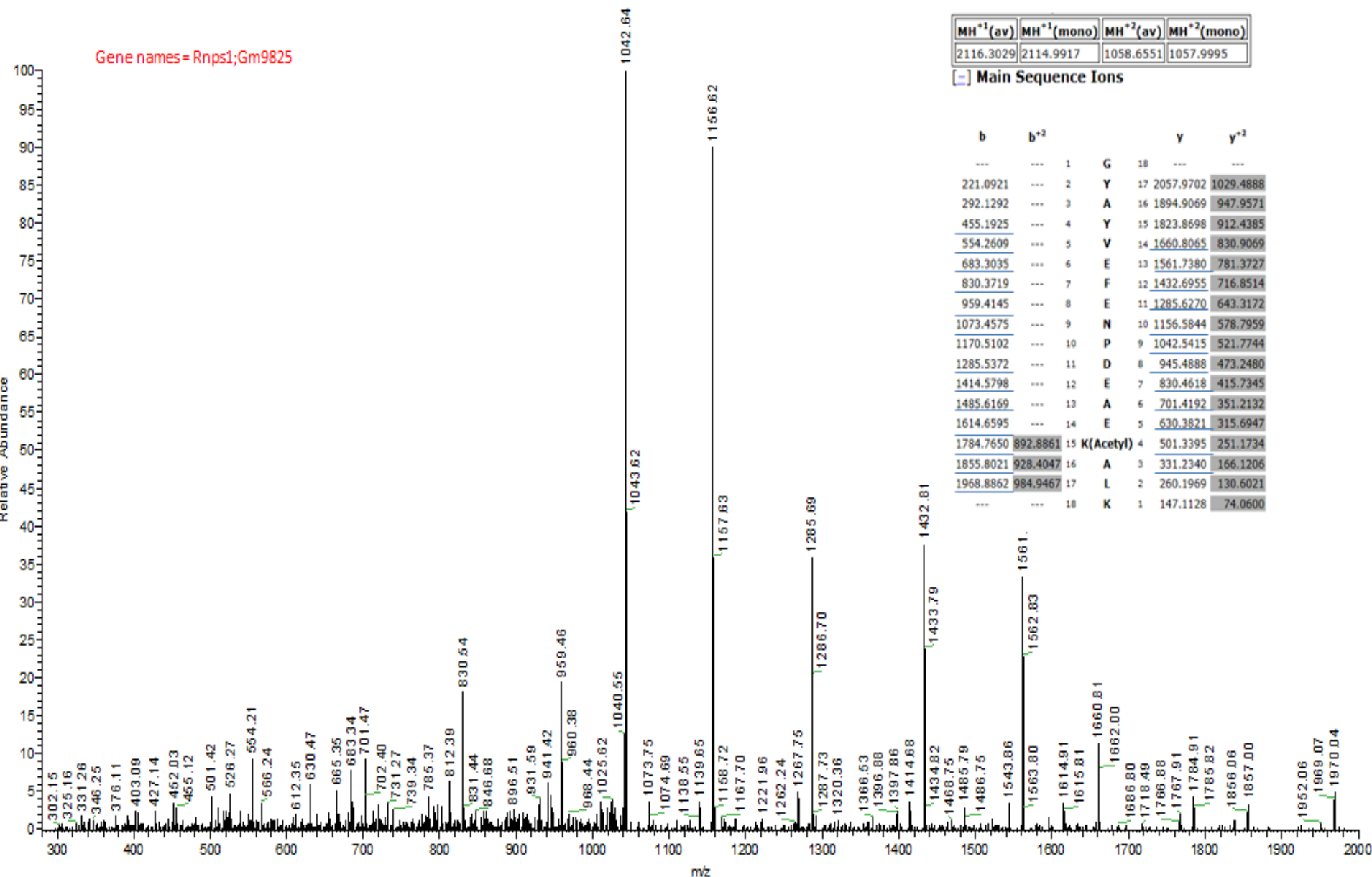
[-] Main Sequence Ions

b	b ⁺		y	y ⁺
---	---	1	Q	11 ---
242.1499	---	2	L	10 1273.6569 637.3321
370.2085	---	3	Q	9 1160.5728 580.7901
484.2514	---	4	N	8 1032.5143 516.7608
612.3100	---	5	Q	7 918.4713 459.7393
725.3941	---	6	L	6 790.4128 395.7100
796.4312	---	7	A	5 677.3287 339.1680
925.4738	---	8	E	4 606.2916 303.6494
1085.5044	---	9	C(Carbamidomethyl)	3 477.2490 239.1281
1255.6099	528.3086	10	K(Acetyl)	2 317.2183 159.1128
---	---	11	K	1 147.1128 74.0600



- G Y A Y V E F E N P D E A E K A L K -
 b4 b5 b6 b5 b6 b15 b14 b15 b16 b17

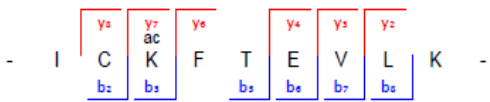
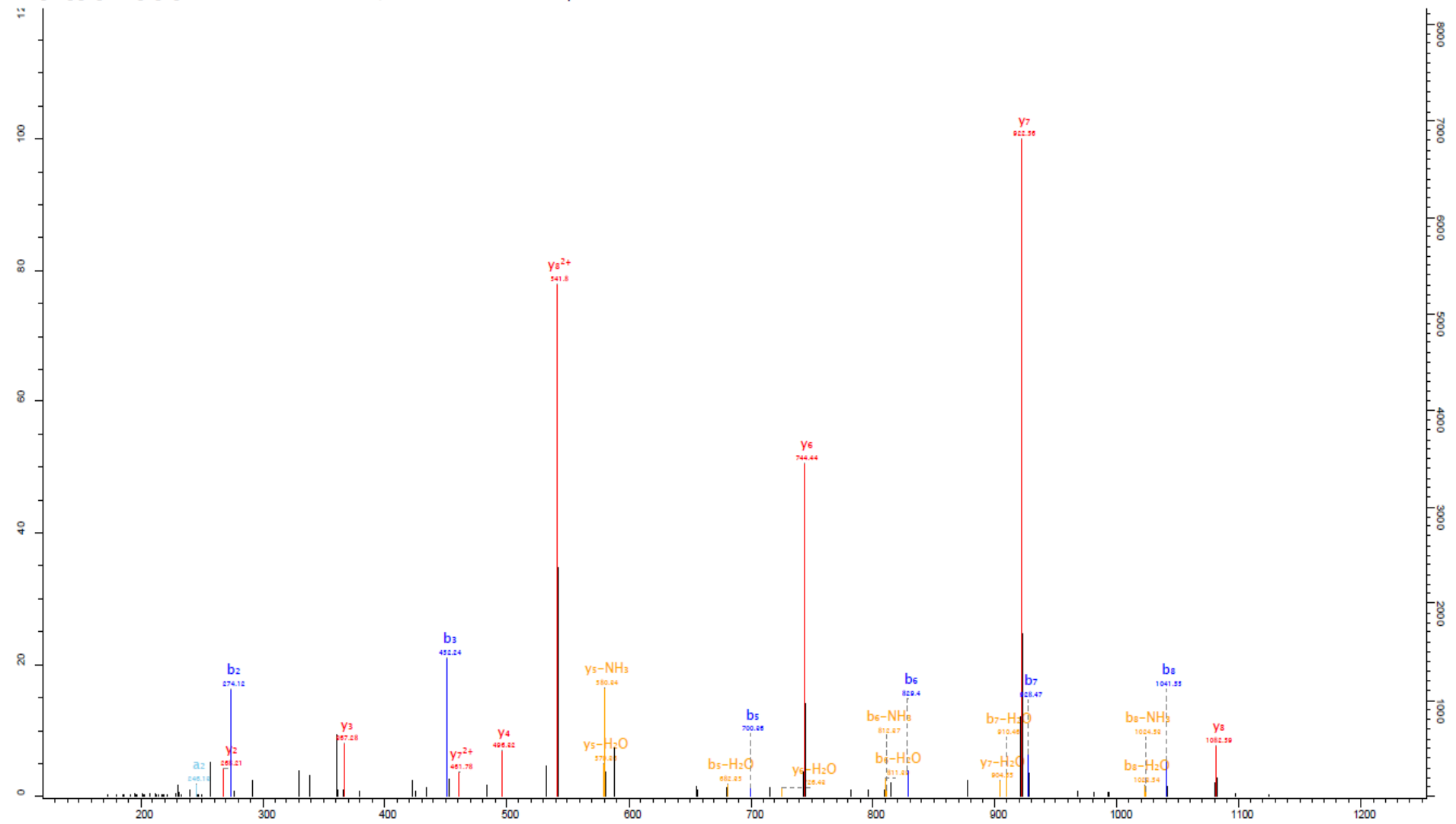
Gene names = Rnps1;Gm9825



MH ⁺ (av)	MH ⁺ (mono)	MH ⁺ (av)	MH ⁺ (mono)
2116.3029	2114.9917	1058.6551	1057.9995

[-] Main Sequence Ions

b	b ⁺		y	y ⁺
---	---	1	G	---
221.0921	---	2	Y	17 2057.9702 1029.4888
292.1292	---	3	A	16 1894.9069 947.9571
455.1925	---	4	Y	15 1823.8698 912.4385
554.2609	---	5	V	14 1660.8065 830.9069
683.3035	---	6	E	13 1561.7380 781.3727
830.3719	---	7	F	12 1432.6955 716.8514
959.4145	---	8	E	11 1285.6270 643.3172
1073.4575	---	9	N	10 1156.5844 578.7959
1170.5102	---	10	P	9 1042.5415 521.7744
1285.5372	---	11	D	8 945.4888 473.2480
1414.5798	---	12	E	7 830.4618 415.7345
1485.6169	---	13	A	6 701.4192 351.2132
1614.6595	---	14	E	5 630.3821 315.6947
1784.7650	892.8861	15	K(Acetyl)	4 501.3395 251.1734
1855.8021	928.4047	16	A	3 331.2340 166.1206
1968.8862	984.9467	17	L	2 260.1969 130.6021
---	---	18	K	1 147.1128 74.0600

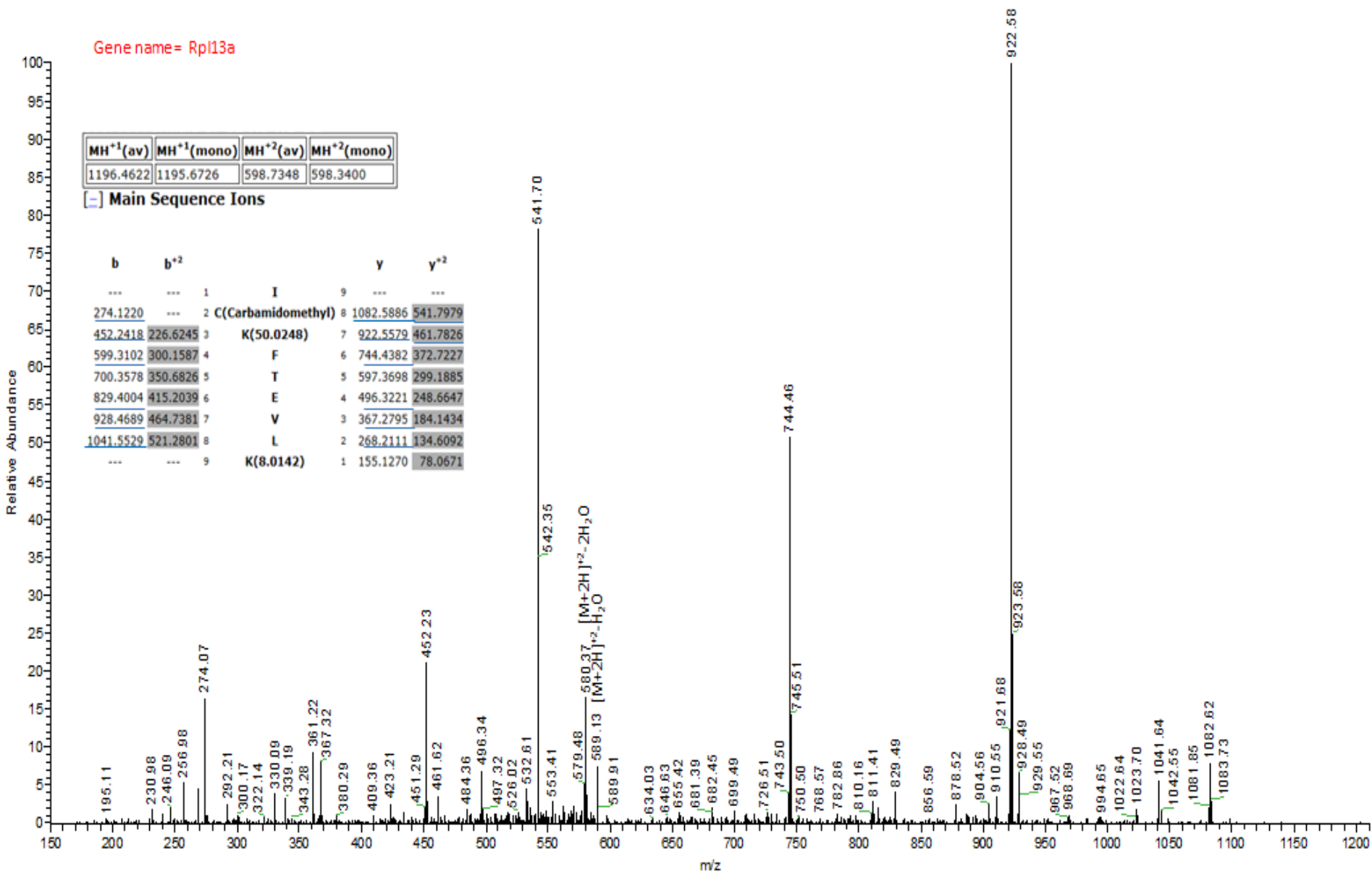


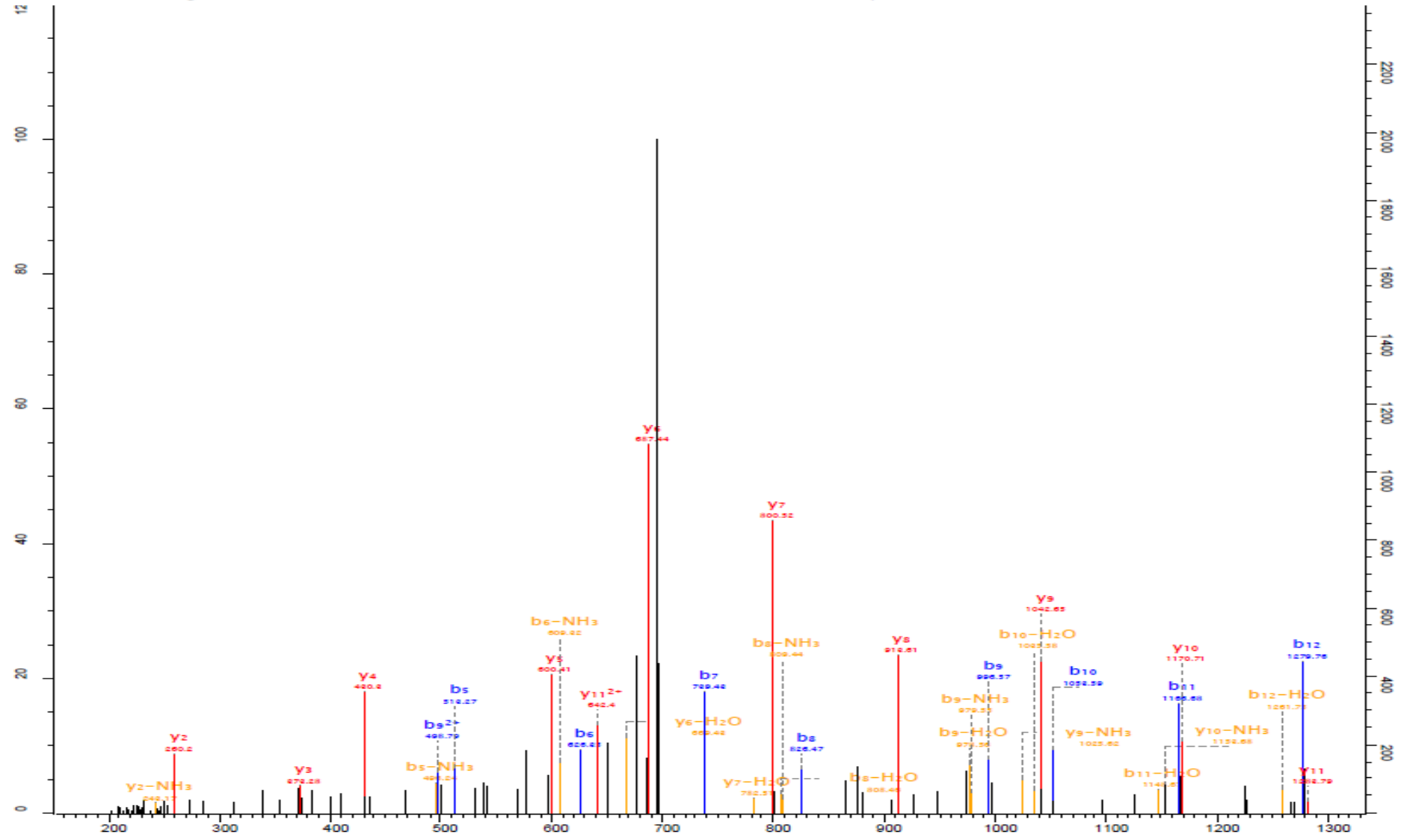
Gene name = Rpl13a

MH ⁺ (av)	MH ⁺ (mono)	MH ⁺ (av)	MH ⁺ (mono)
1196.4622	1195.6726	598.7348	598.3400

[-] Main Sequence Ions

b	b ⁺		y	y ⁺
---	---	1	I	9
274.1220	---	2	C(Carbamidomethyl)	8
452.2418	226.6245	3	K(50.0248)	7
599.3102	300.1587	4	F	6
700.3578	350.6826	5	T	5
829.4004	415.2039	6	E	4
928.4689	464.7381	7	V	3
1041.5529	521.2801	8	L	2
---	---	9	K(8.0142)	1





- A A L Q E L L S ac K G L I K -

Fragmentation mapping below the sequence:

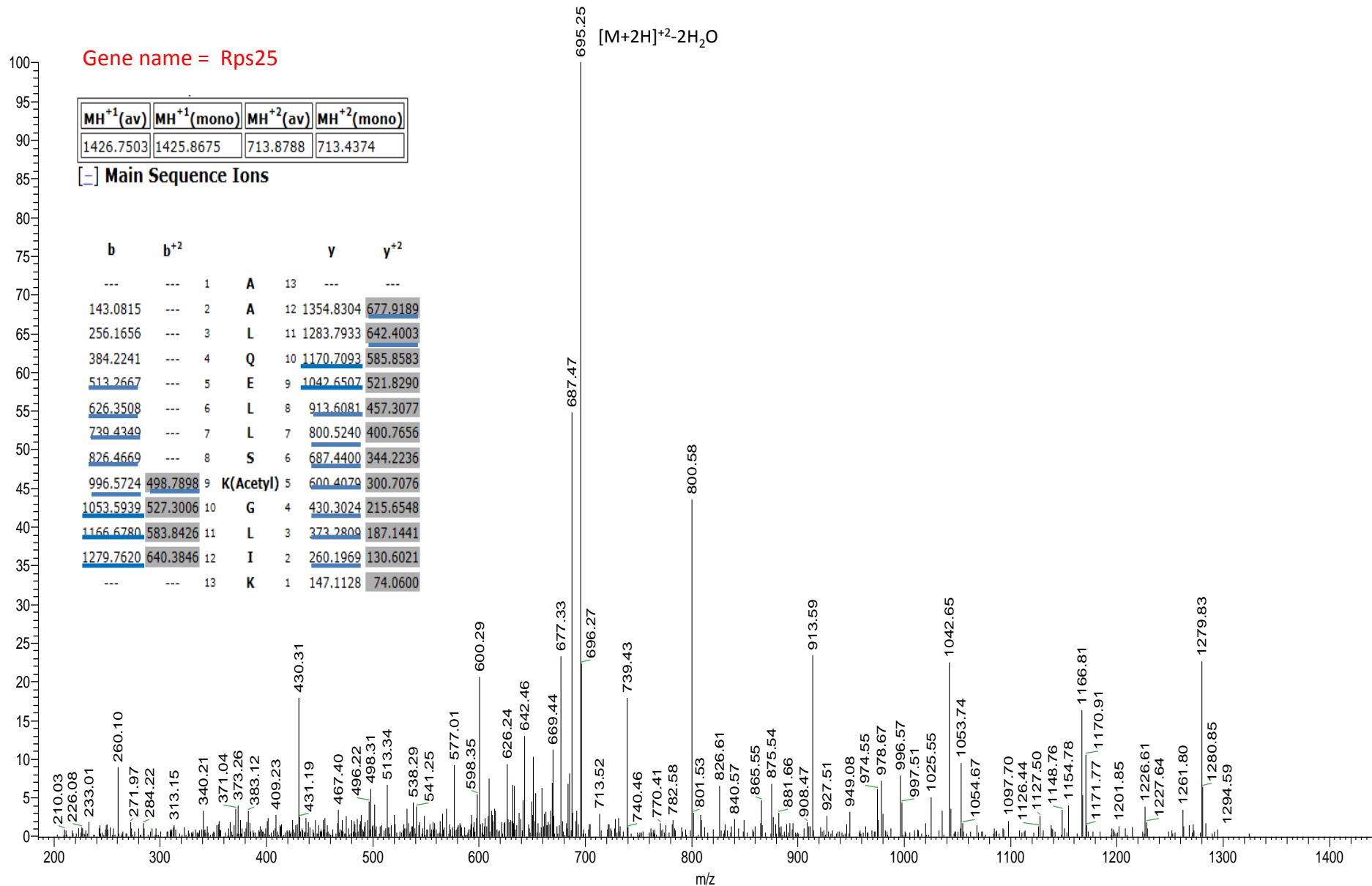
- L: Y11, Y10
- Q: Y9
- E: Y5, b5
- L: Y4, b6
- L: Y7, b7
- S: Y6, b8
- ac: Y5, b9
- K: Y4, b10
- G: Y5, b11
- L: Y2, b12
- I: Y11

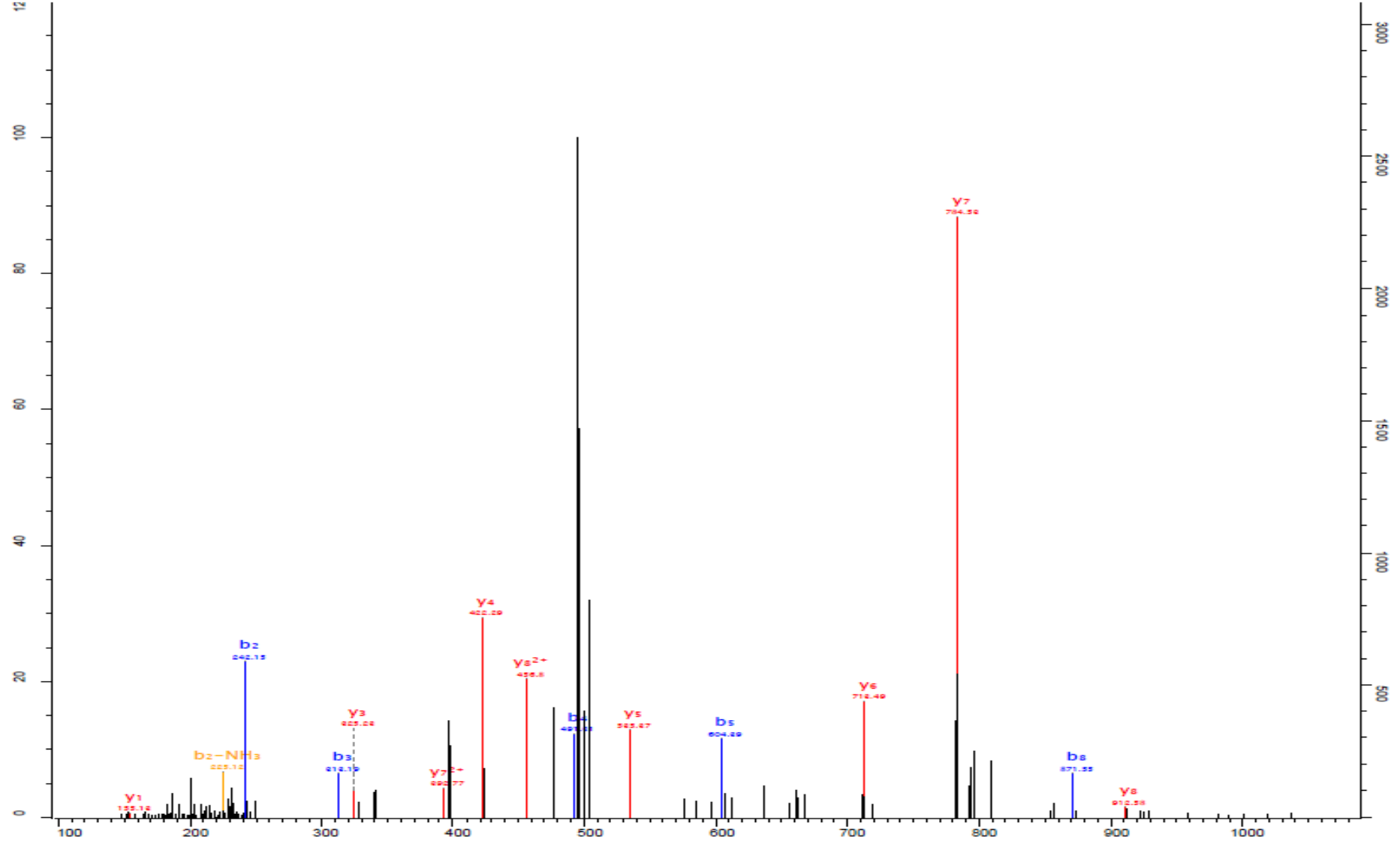
Gene name = Rps25

MH ⁺ 1 (av)	MH ⁺ 1 (mono)	MH ⁺ 2 (av)	MH ⁺ 2 (mono)
1426.7503	1425.8675	713.8788	713.4374

[-] Main Sequence Ions

b	b ⁺ 2		y	y ⁺ 2	
---	---	1	A	13	---
143.0815	---	2	A	12	1354.8304
256.1656	---	3	L	11	1283.7933
384.2241	---	4	Q	10	1170.7093
513.2667	---	5	E	9	1042.6507
626.3508	---	6	L	8	913.6081
739.4349	---	7	L	7	800.5240
826.4669	---	8	S	6	687.4400
996.5724	498.7898	9	K(Acetyl)	5	600.4070
1053.5939	527.3006	10	G	4	430.3024
1166.6780	583.8426	11	L	3	373.2800
1279.7620	640.3846	12	I	2	260.1969
---	---	13	K	1	147.1128





- I [Y6 Q] [Y7 A] [Y5 ac K] [Y5 I] [Y6 P] [Y5 G] [Y1 L] [Y1 K] -
 [b2] [b3] [b4] [b5] [b6]

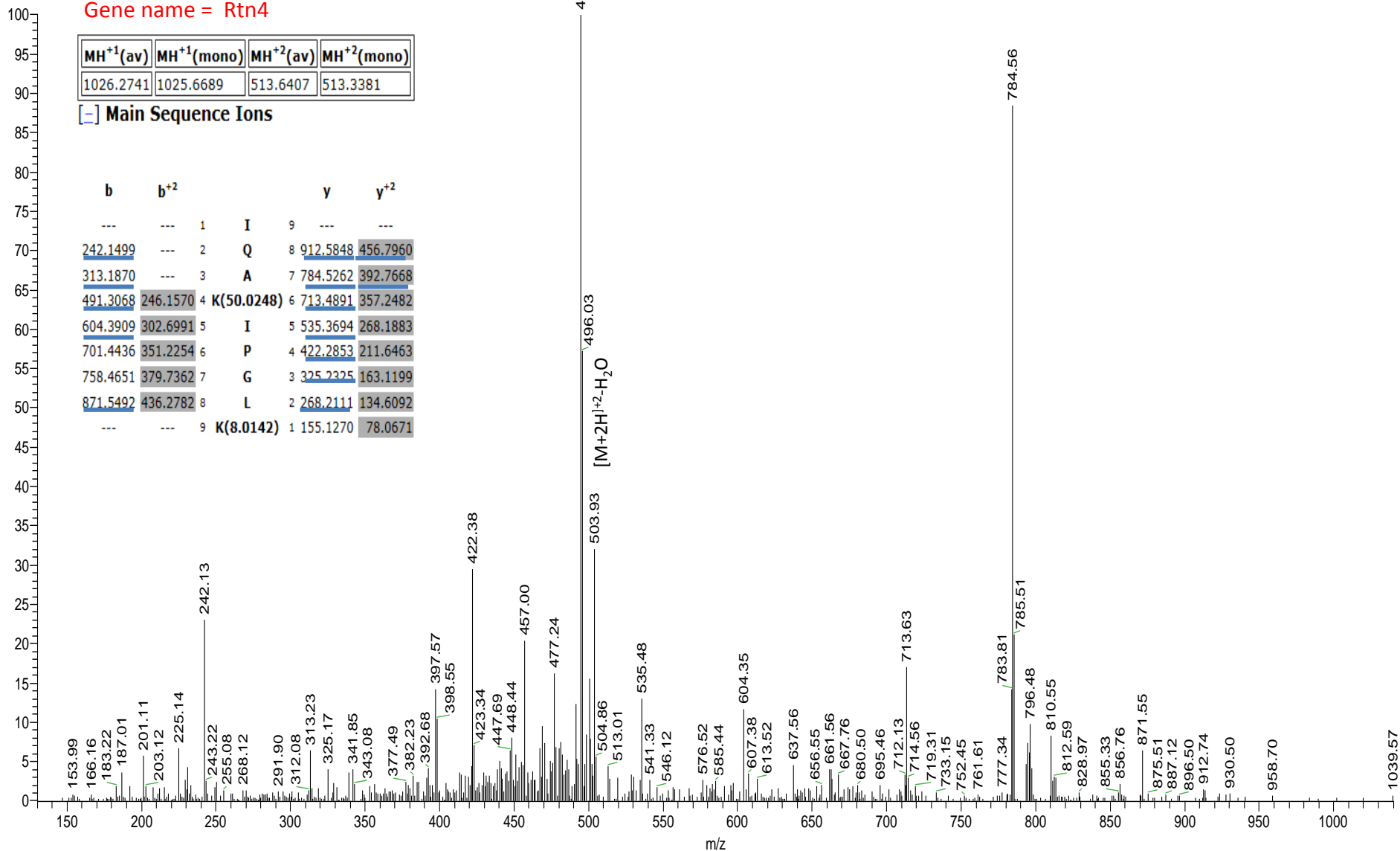
[M+2H]⁺-2H₂O

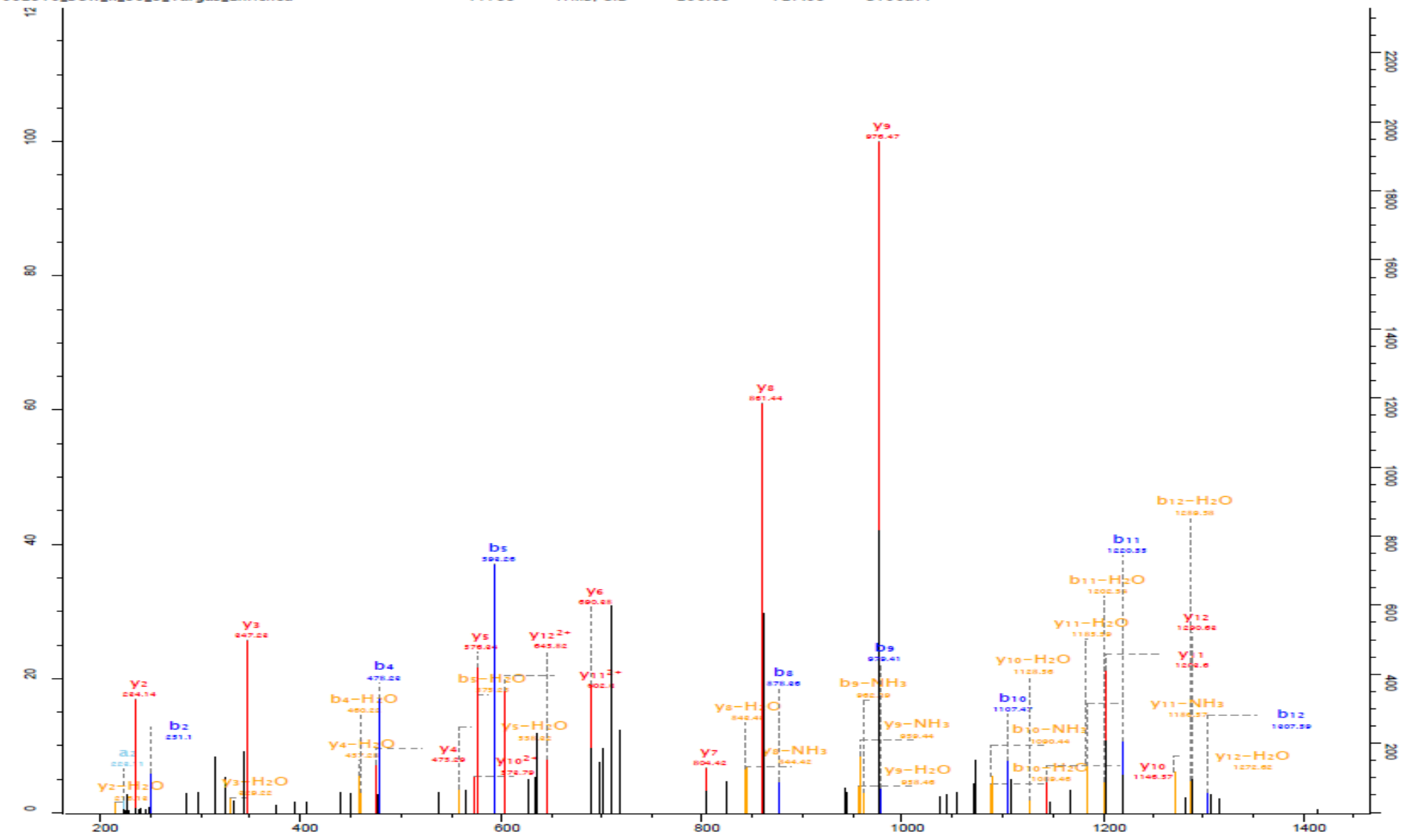
Gene name = Rtn4

MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)
1026.2741	1025.6689	513.6407	513.3381

(-) Main Sequence Ions

b	b ⁺		y	y ⁺
---	---	1	I	9
---	---	2	Q	8
---	---	3	A	7
---	---	4	K(50.0248)	6
---	---	5	I	5
---	---	6	P	4
---	---	7	G	3
---	---	8	L	2
---	---	9	K(8.0142)	1

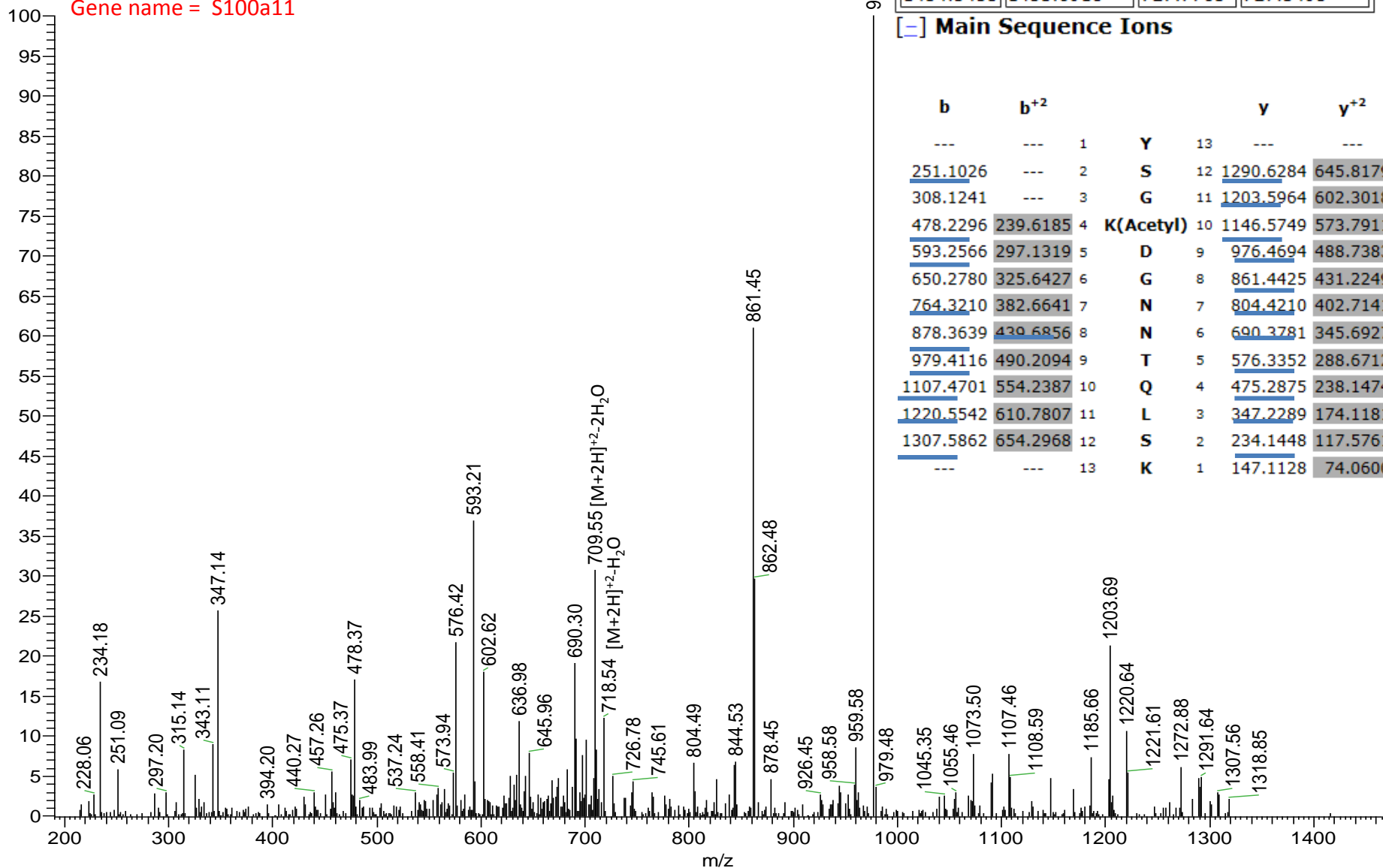




Y S G K D G N N T Q L S K

b₂ ac b₄ b₅ b₆ b₉ b₁₀ b₁₁ b₁₂

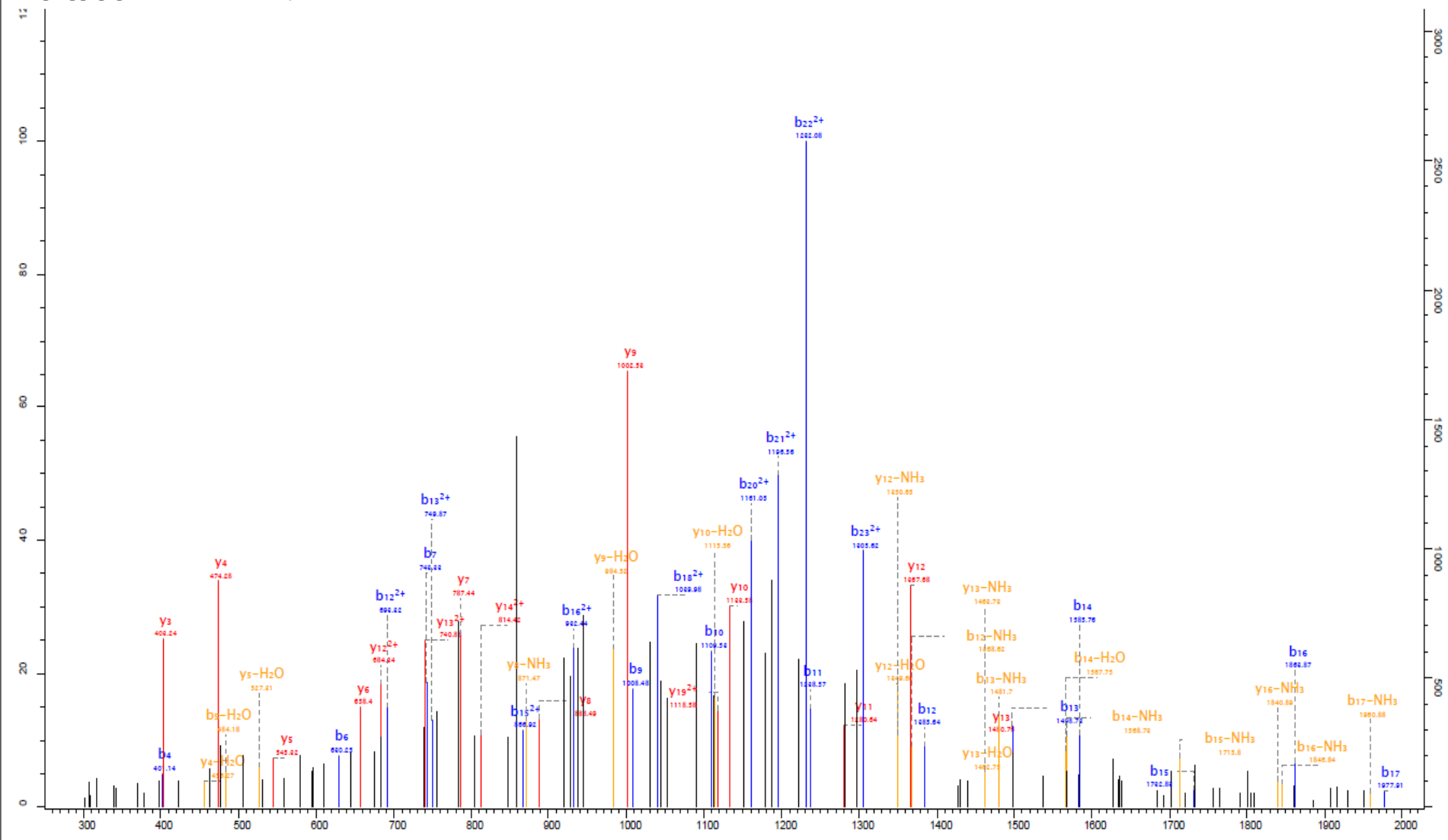
Gene name = S100a11



MH ⁺ (av)	MH ⁺ (mono)	MH ²⁺ (av)	MH ²⁺ (mono)
1454.5455	1453.6918	727.7765	727.3495

[-] Main Sequence Ions

b	b ²⁺		y	y ²⁺
---	---	1	Y	13
<u>251.1026</u>	---	2	S	12 <u>1290.6284</u> <u>645.8179</u>
<u>308.1241</u>	---	3	G	11 <u>1203.5964</u> <u>602.3018</u>
<u>478.2296</u>	<u>239.6185</u>	4	K(Acetyl)	10 <u>1146.5749</u> <u>573.7911</u>
<u>593.2566</u>	<u>297.1319</u>	5	D	9 <u>976.4694</u> <u>488.7383</u>
<u>650.2780</u>	<u>325.6427</u>	6	G	8 <u>861.4425</u> <u>431.2249</u>
<u>764.3210</u>	<u>382.6641</u>	7	N	7 <u>804.4210</u> <u>402.7141</u>
<u>878.3639</u>	<u>439.6856</u>	8	N	6 <u>690.3781</u> <u>345.6927</u>
<u>979.4116</u>	<u>490.2094</u>	9	T	5 <u>576.3352</u> <u>288.6712</u>
<u>1107.4701</u>	<u>554.2387</u>	10	Q	4 <u>475.2875</u> <u>238.1474</u>
<u>1220.5542</u>	<u>610.7807</u>	11	L	3 <u>347.2289</u> <u>174.1181</u>
<u>1307.5862</u>	<u>654.2968</u>	12	S	2 <u>234.1448</u> <u>117.5761</u>
..	---	13	K	1 <u>147.1128</u> <u>74.0600</u>

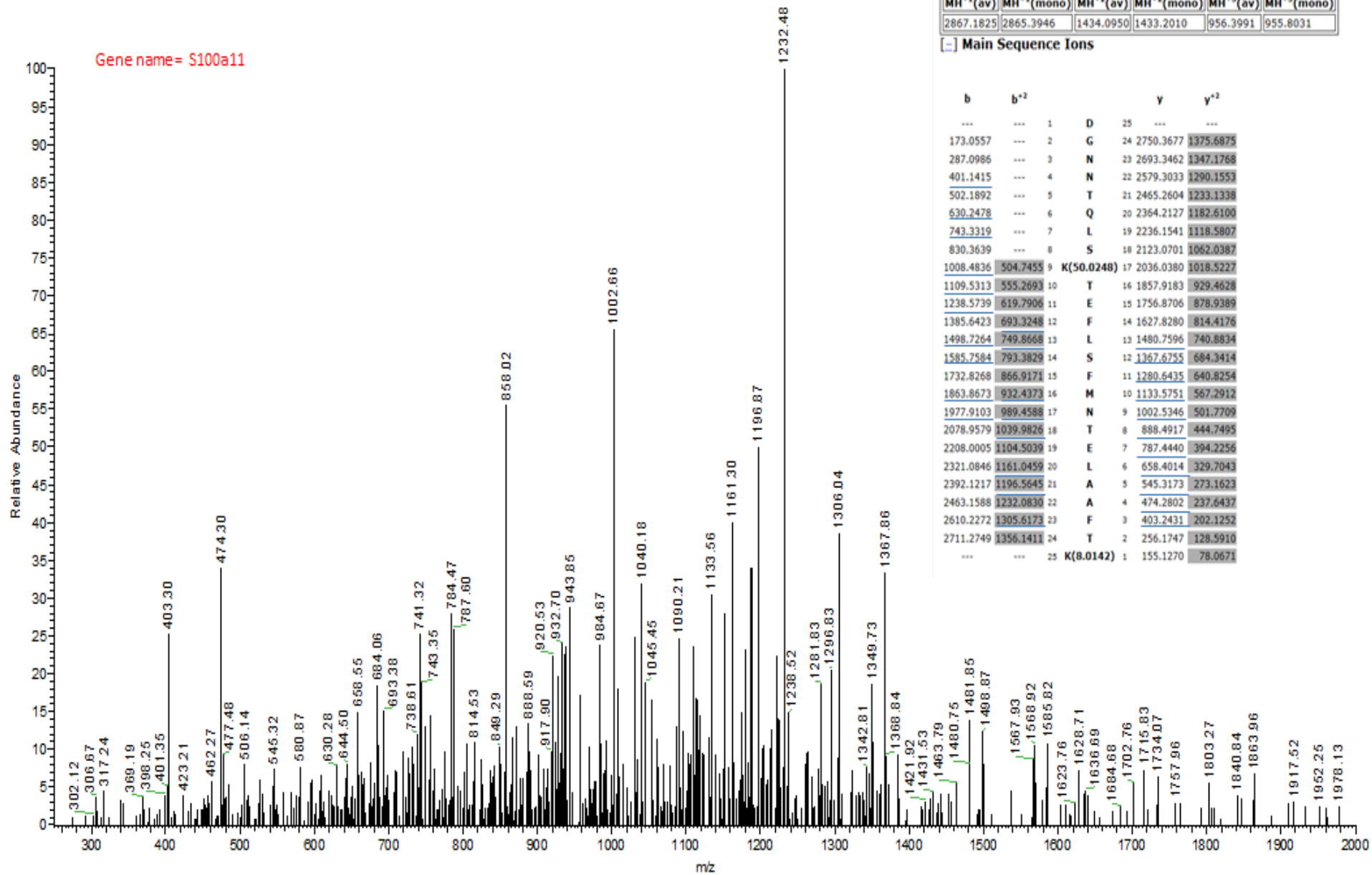


- D G N N T Q L S ac K T E F L S F M N T E L A A F T K -

b4
b5
b7
b8
b10
b11
b12
b13
b14
b15
b16
b17
b12²⁺
b20²⁺
b21²⁺
b22²⁺
b22²⁺

y12²⁺
y14²⁺
y15
y12
y11
y10
y9
y8
y7
y6
y5
y4
y3

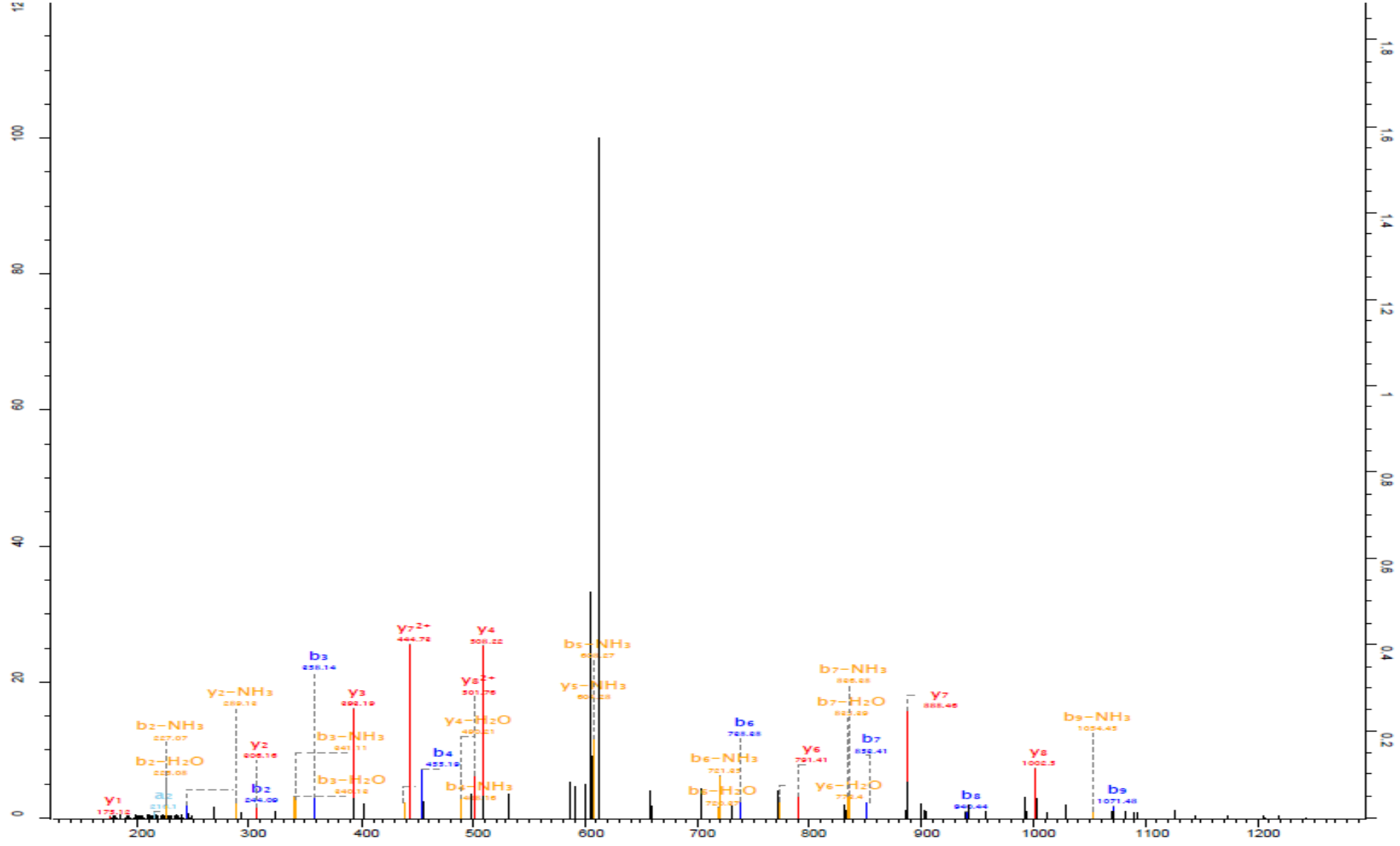
Gene name= S100a11



MH ⁺ (av)	MH ⁺ (mono)	MH ⁺ (av)	MH ⁺ (mono)	MH ⁺ (av)	MH ⁺ (mono)
2867.1825	2865.3946	1434.0950	1433.2010	956.3991	955.8031

[-] Main Sequence Ions

b	b ⁺	y	y ⁺
...	...	1	D
...	...	2	G
...	...	3	N
...	...	4	N
...	...	5	T
...	...	6	Q
...	...	7	L
...	...	8	S
...	...	9	K(50.0248)
...	...	10	T
...	...	11	E
...	...	12	F
...	...	13	L
...	...	14	S
...	...	15	F
...	...	16	M
...	...	17	N
...	...	18	T
...	...	19	E
...	...	20	L
...	...	21	A
...	...	22	A
...	...	23	F
...	...	24	T
...	...	25	K(8.0142)



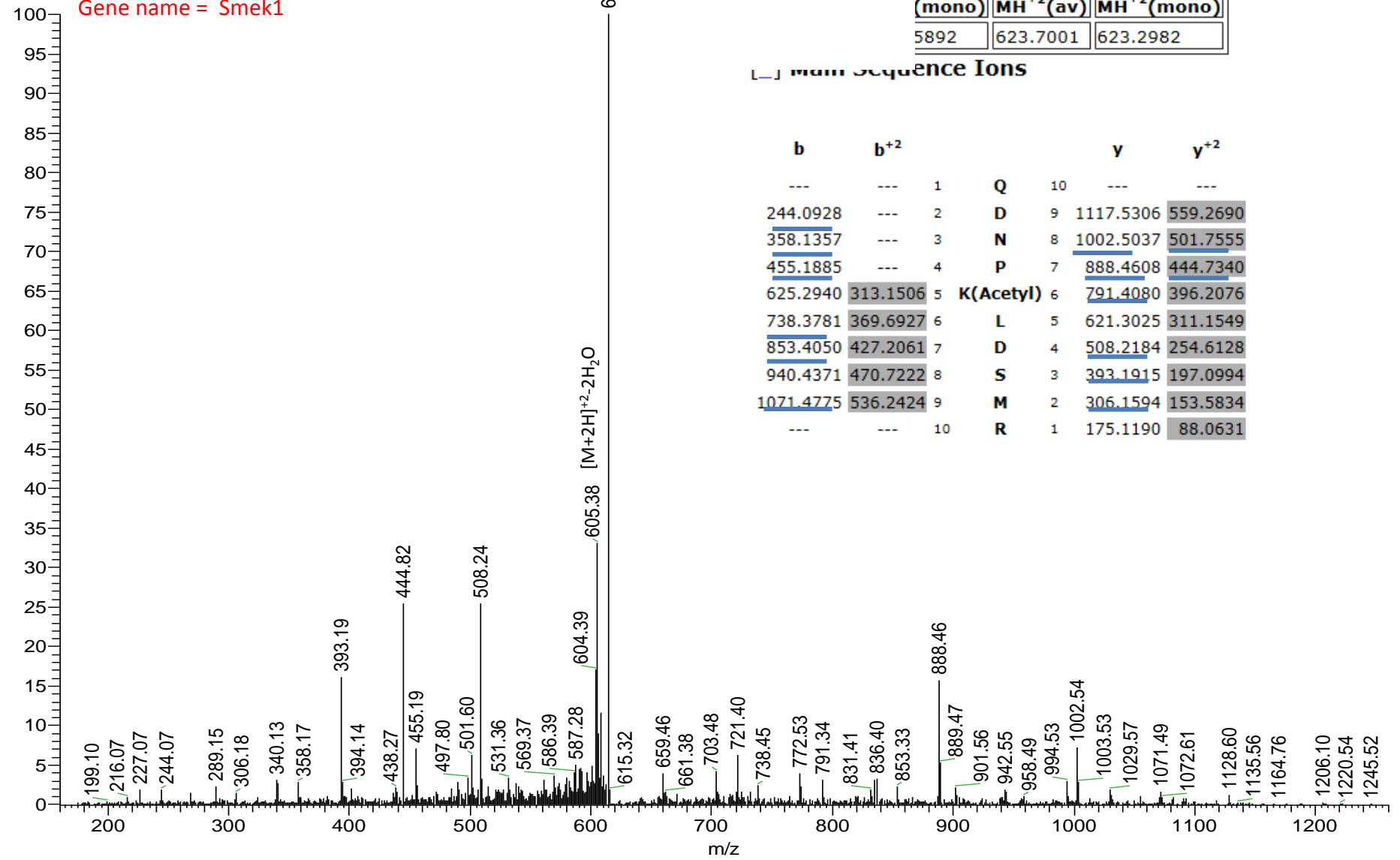
- Q D N P K L D S M R -

b₂
y₆
y₇
y₆ ac
K
b₅
b₇
b₅
b₆

[M+2H]²⁺-H₂O

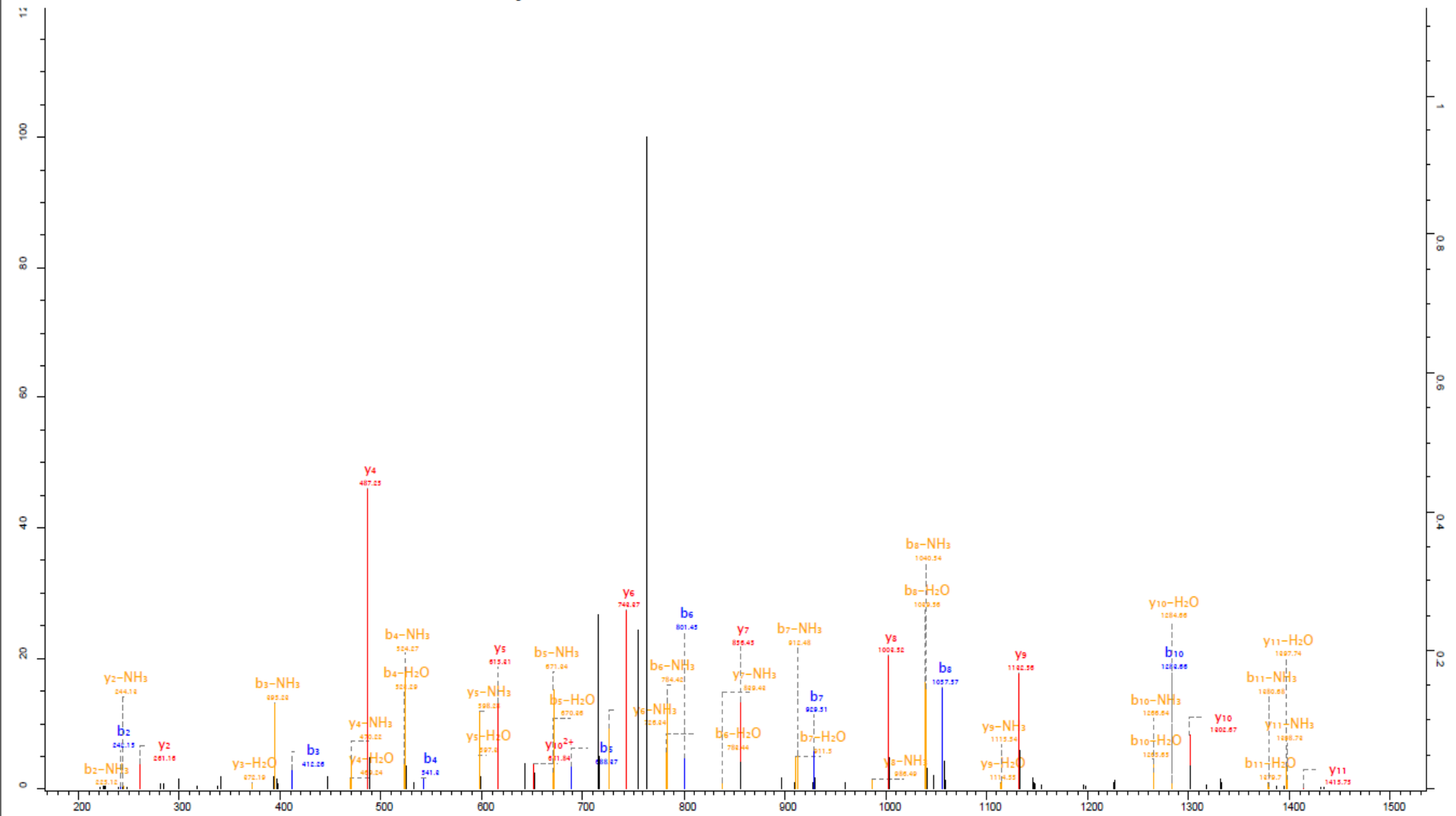
(mono)	MH ²⁺ (av)	MH ²⁺ (mono)
5892	623.7001	623.2982

Gene name = Smek1



main sequence Ions

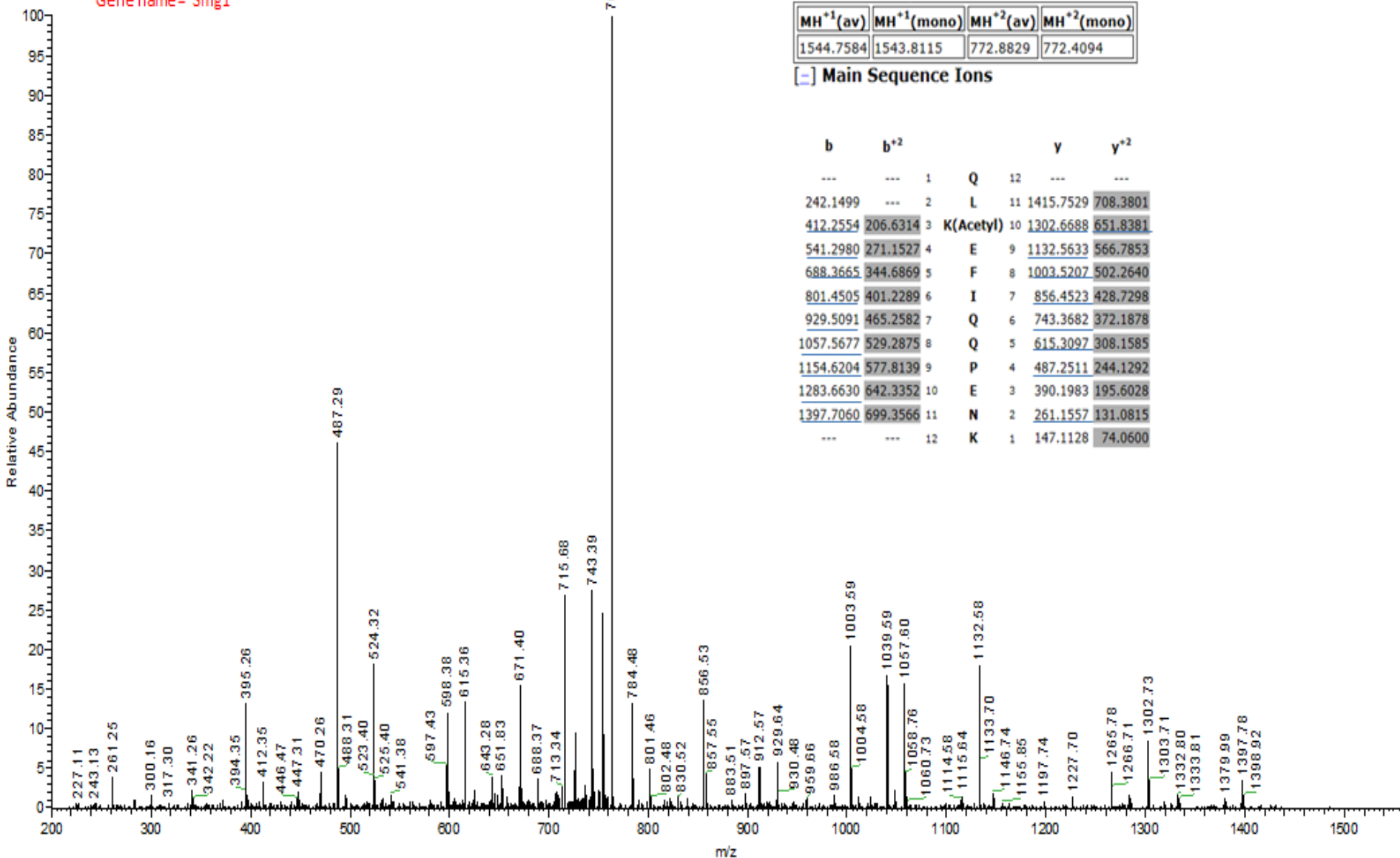
b	b ²⁺			y	y ²⁺
---	---	1	Q	10	---
244.0928	---	2	D	9	1117.5306 559.2690
358.1357	---	3	N	8	1002.5037 501.7555
455.1885	---	4	P	7	888.4608 444.7340
625.2940	313.1506	5	K(Acetyl)	6	791.4080 396.2076
738.3781	369.6927	6	L	5	621.3025 311.1549
853.4050	427.2061	7	D	4	508.2184 254.6128
940.4371	470.7222	8	S	3	393.1915 197.0994
1071.4775	536.2424	9	M	2	306.1594 153.5834
---	---	10	R	1	175.1190 88.0631



- Q L K E F I Q Q P E N K -
 b2 b3 b4 b5 b6 b7 b8 b9 b10

[M+2H]²⁺-H₂O

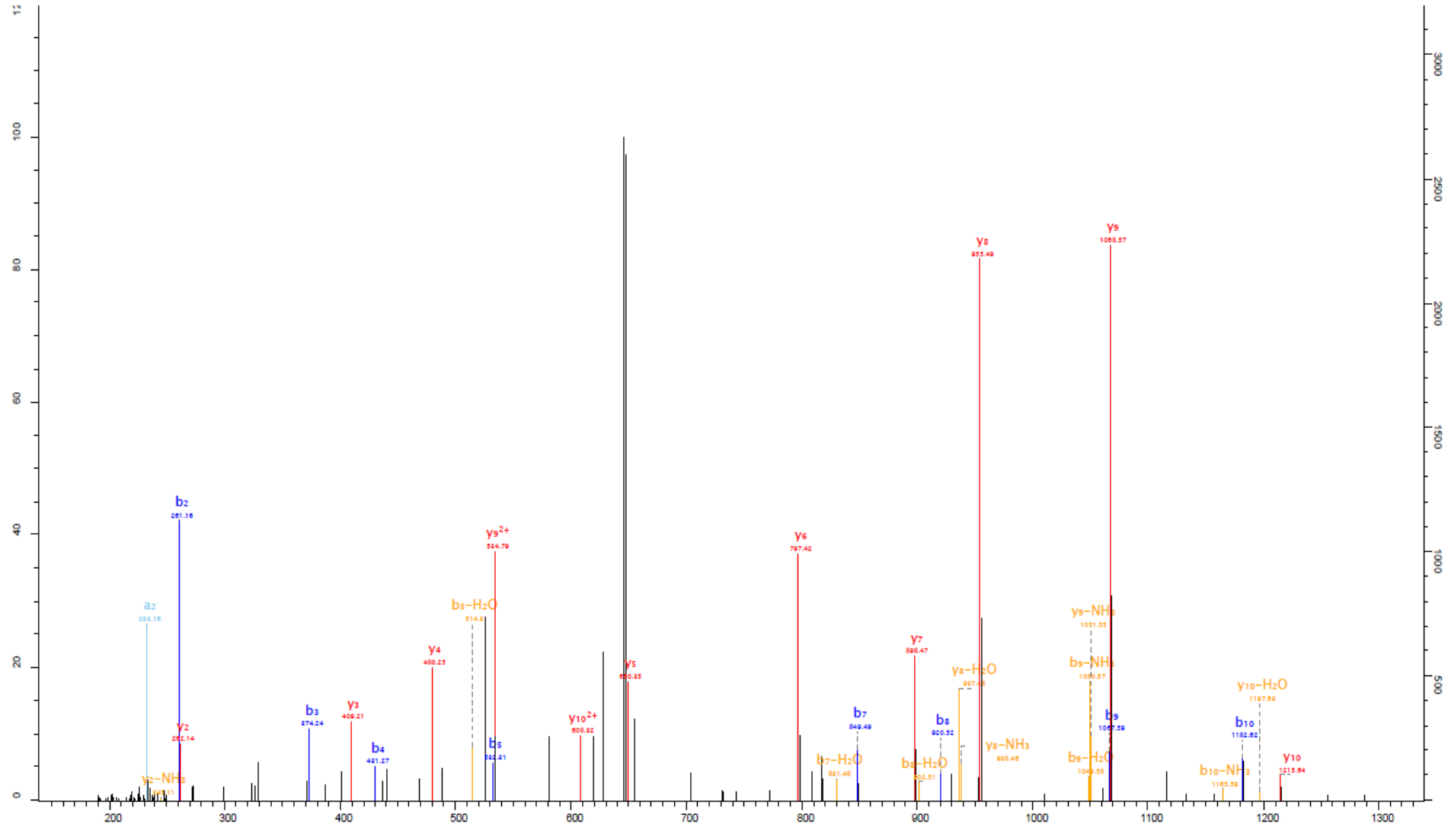
Gene name = Smg1



MH ⁺ (av)	MH ⁺ (mono)	MH ²⁺ (av)	MH ²⁺ (mono)
1544.7584	1543.8115	772.8829	772.4094

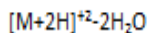
[-] Main Sequence Ions

b	b ²⁺		y	y ²⁺	
---	---	1	Q	12	---
242.1499	---	2	L	11	1415.7529
412.2554	206.6314	3	K(Acetyl)	10	1302.6688
541.2980	271.1527	4	E	9	1132.5633
688.3665	344.6869	5	F	8	1003.5207
801.4505	401.2289	6	I	7	856.4523
929.5091	465.2582	7	Q	6	743.3682
1057.5677	529.2875	8	Q	5	615.3097
1154.6204	577.8139	9	P	4	487.2511
1283.6630	642.3352	10	E	3	390.1983
1397.7060	699.3566	11	N	2	261.1557
---	---	12	K	1	147.1128



I F I G T F K A F D K

b2 b3 b4 b5 b7 b8 b9 b10

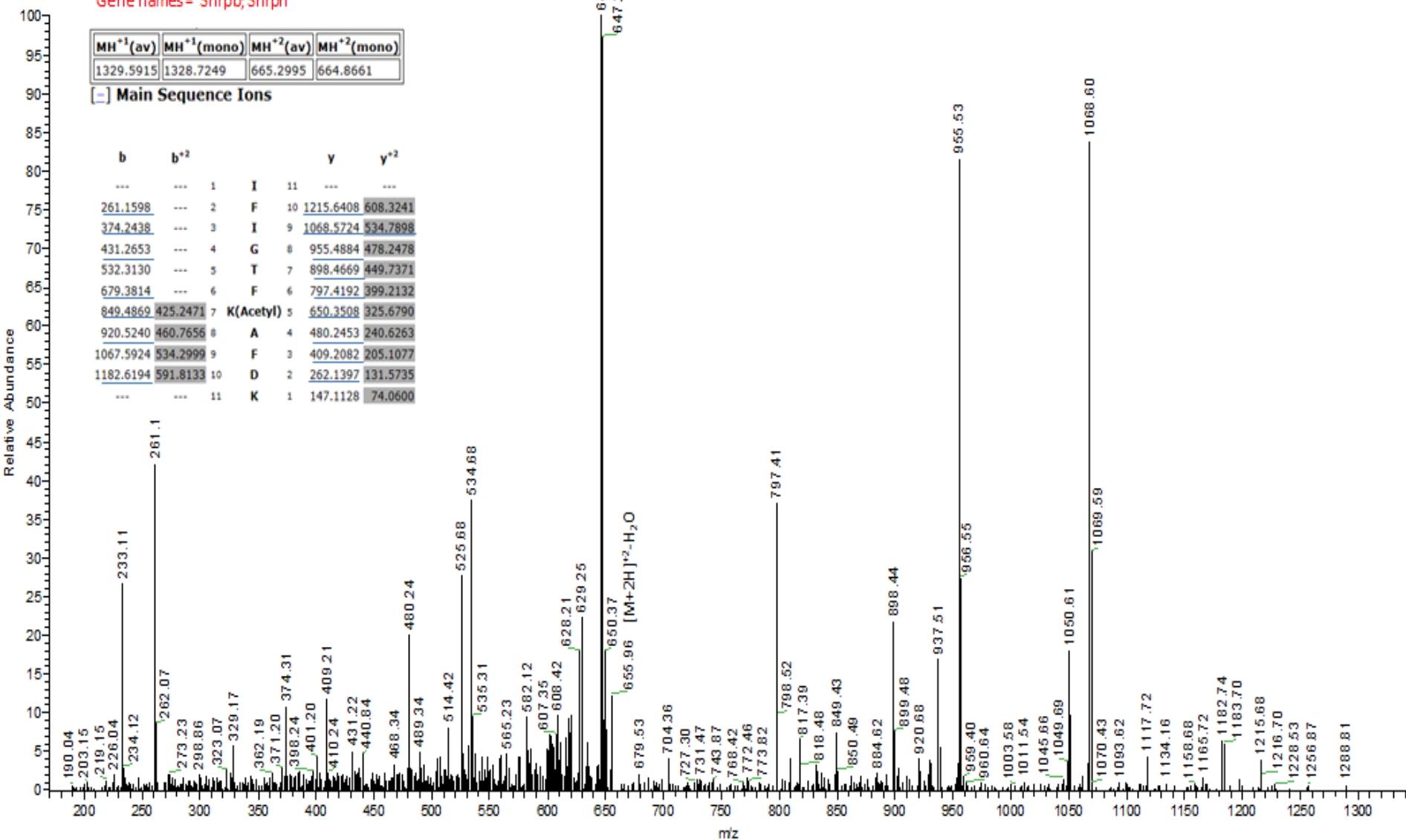


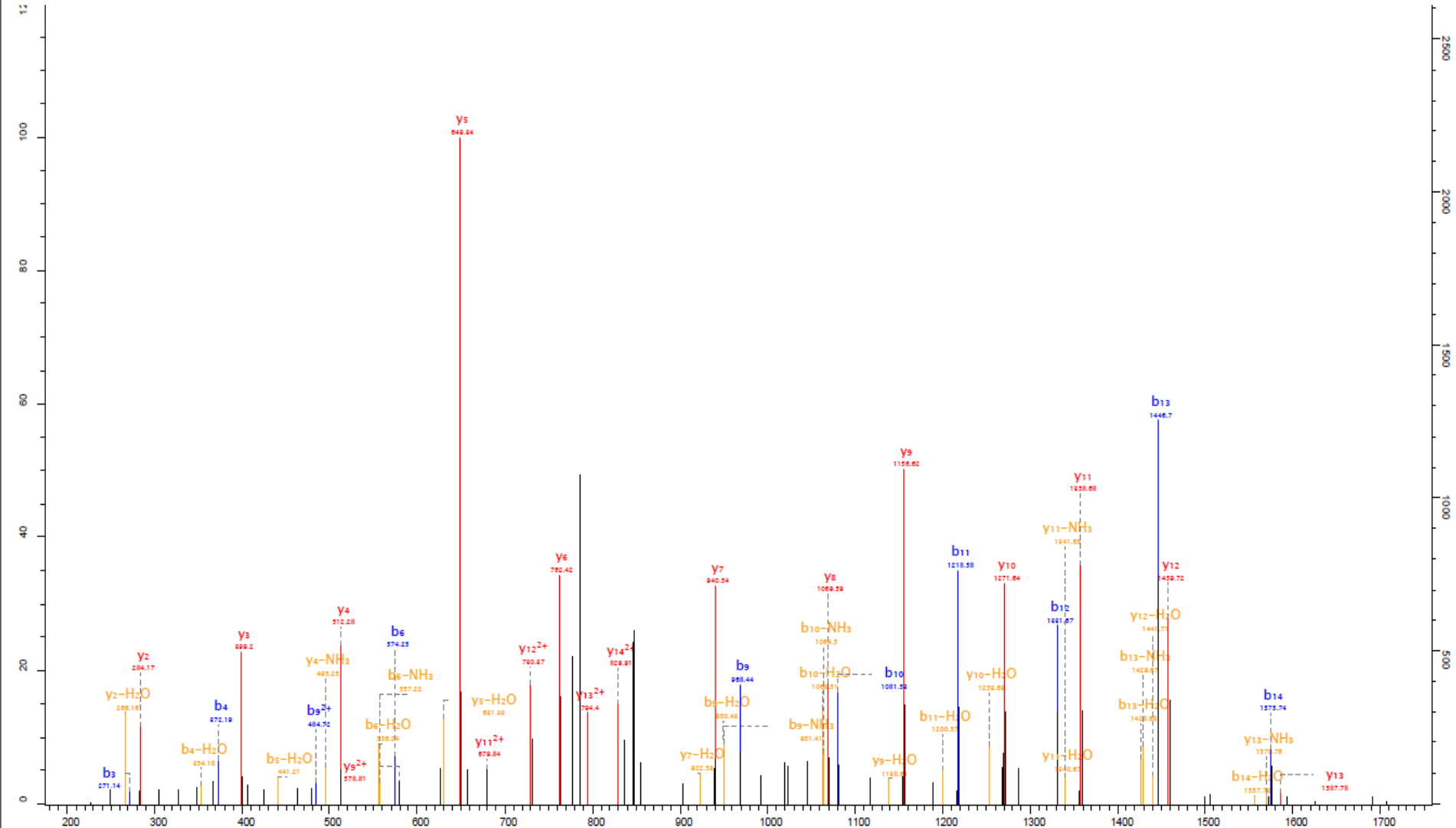
Gene names = Snrpb; Snrpn

MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)
1329.5915	1328.7249	665.2995	664.8661

[-] Main Sequence Ions

b	b ⁺	y	y ⁺
---	---	1	---
261.1598	---	2	F 10 1215.6408 608.3241
374.2438	---	3	I 9 1068.5724 534.7898
431.2653	---	4	G 8 955.4884 478.2478
532.3130	---	5	T 7 898.4669 449.7371
679.3814	---	6	F 6 797.4192 399.2132
849.4869	425.2471	7	K(Acetyl) 5 650.3508 325.6790
920.5240	460.7656	8	A 4 480.2453 240.6263
1067.5924	534.2999	9	F 3 409.2082 205.1077
1182.6194	591.8133	10	D 2 262.1397 131.5735
---	---	11	K 1 147.1128 74.0600





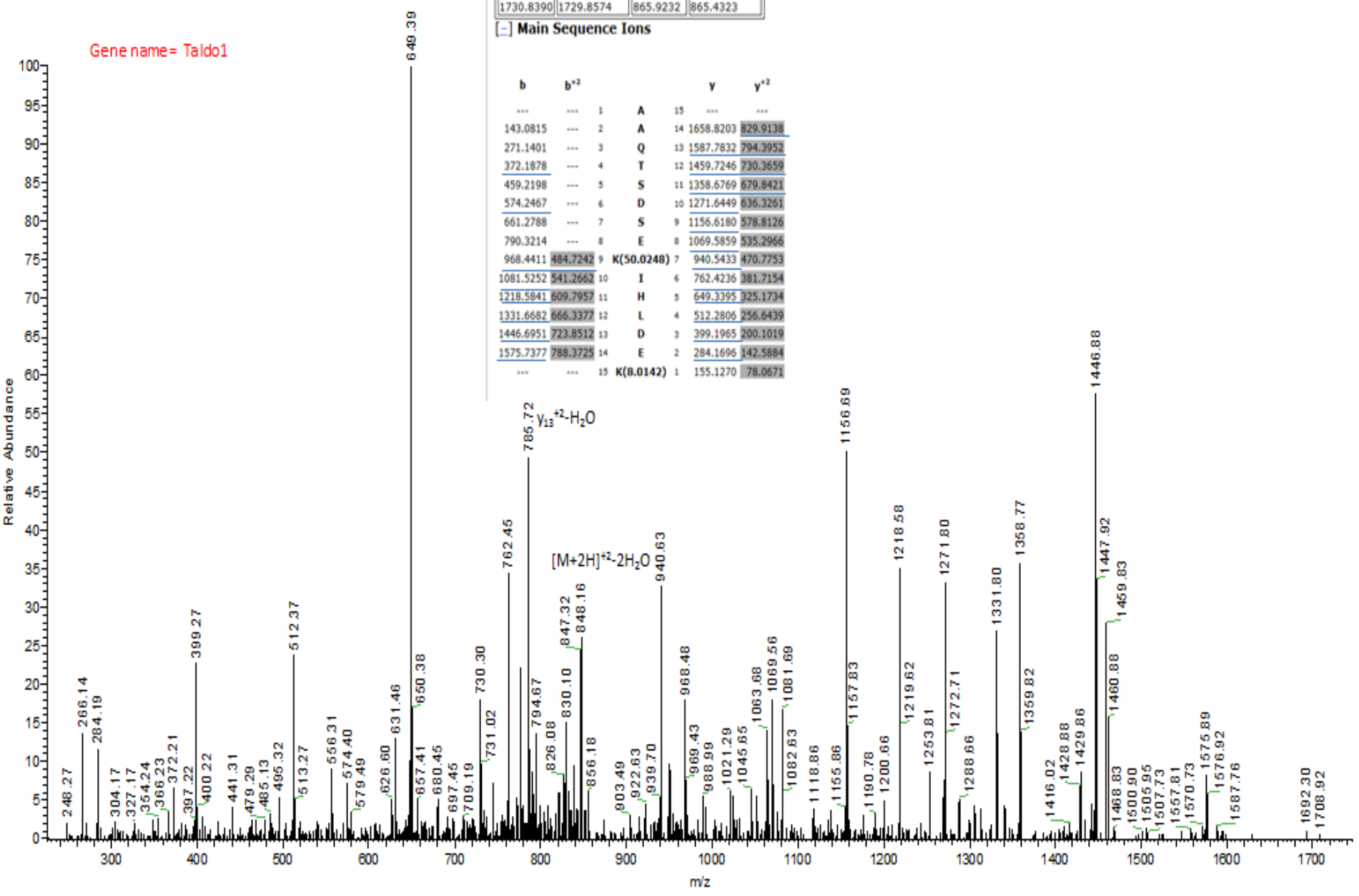
- A A Q T S D S E K I H L D E K -
 b3 b4 b5 b6 b7 b8 b9 b10 b11 b12 b13 b14

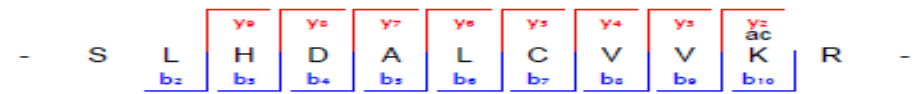
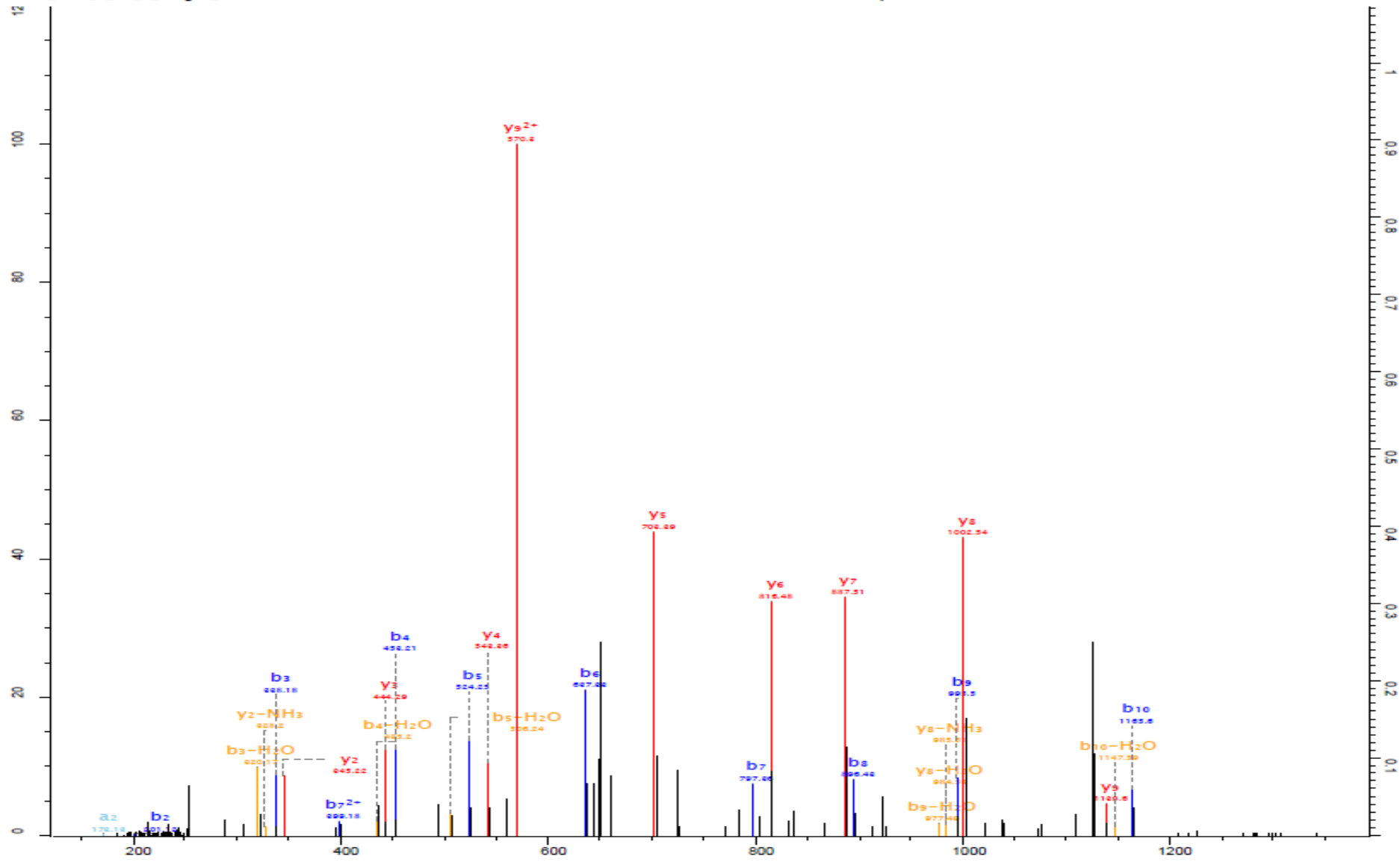
Gene name= **Taldo1**

MH ⁺ (av)	MH ⁺ (mono)	MH ²⁺ (av)	MH ²⁺ (mono)
1730.8390	1729.8574	865.9232	865.4323

Main Sequence Ions

b	b ⁺		y	y ⁺	
---	---	1	A	15	---
143.0815	---	2	A	14	1658.8203 829.9138
271.1401	---	3	Q	13	1587.7832 794.3952
372.1878	---	4	T	12	1459.7246 730.3659
459.2198	---	5	S	11	1358.6769 679.8421
574.2467	---	6	D	10	1271.6449 636.3261
661.2788	---	7	S	9	1156.6180 578.8126
790.3214	---	8	E	8	1069.5859 535.2966
968.4411	884.7242	9	K(50.0248)	7	940.5433 470.7753
1081.5252	541.2662	10	I	6	762.4236 381.7154
1218.5841	609.7957	11	H	5	649.3395 325.1734
1331.6682	666.3377	12	L	4	512.2806 256.6439
1446.6951	723.8512	13	D	3	399.1965 200.1019
1575.7377	788.3725	14	E	2	284.1696 142.5884
---	---	15	K(8.0142)	1	155.1270 78.0671



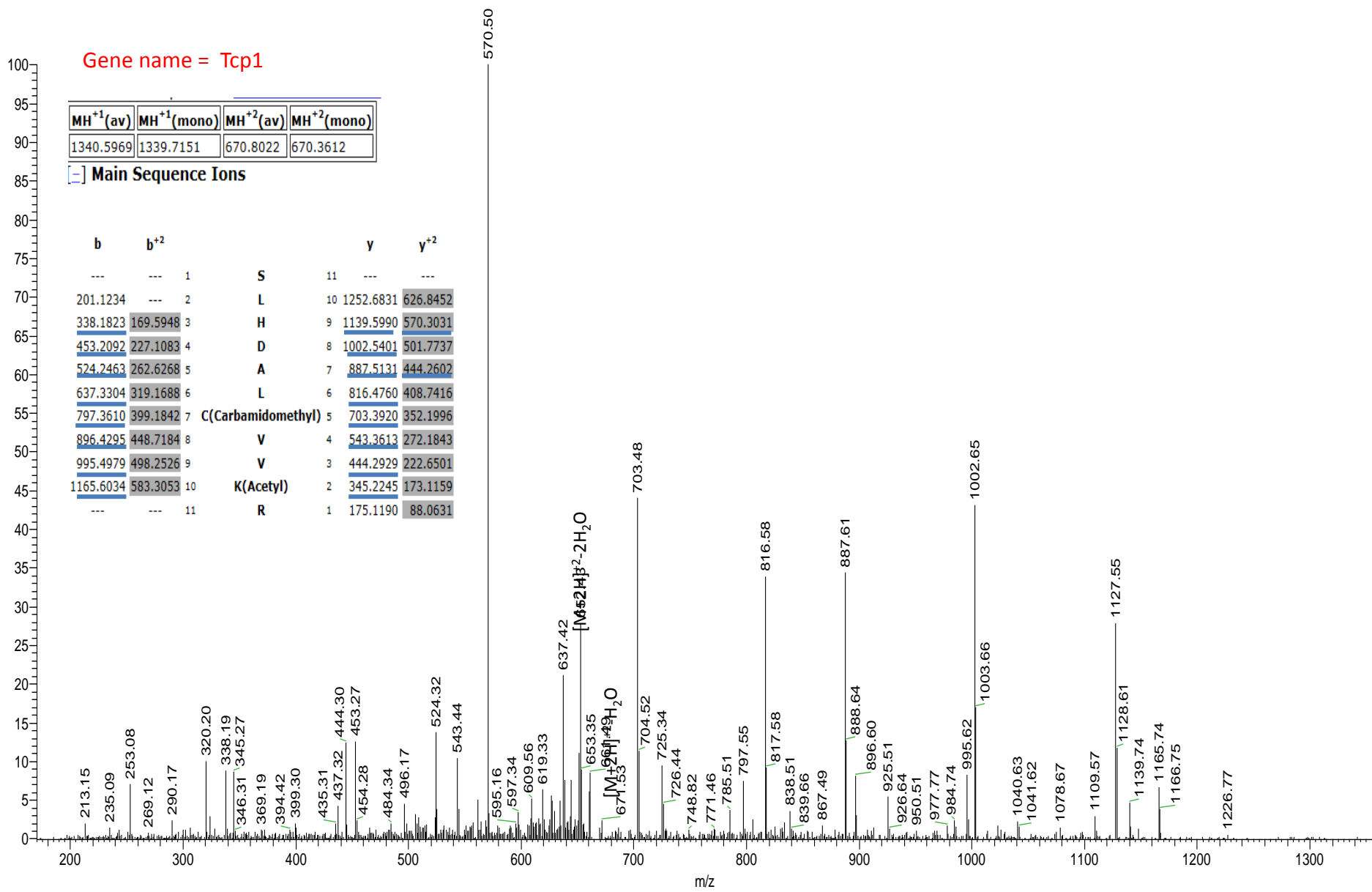


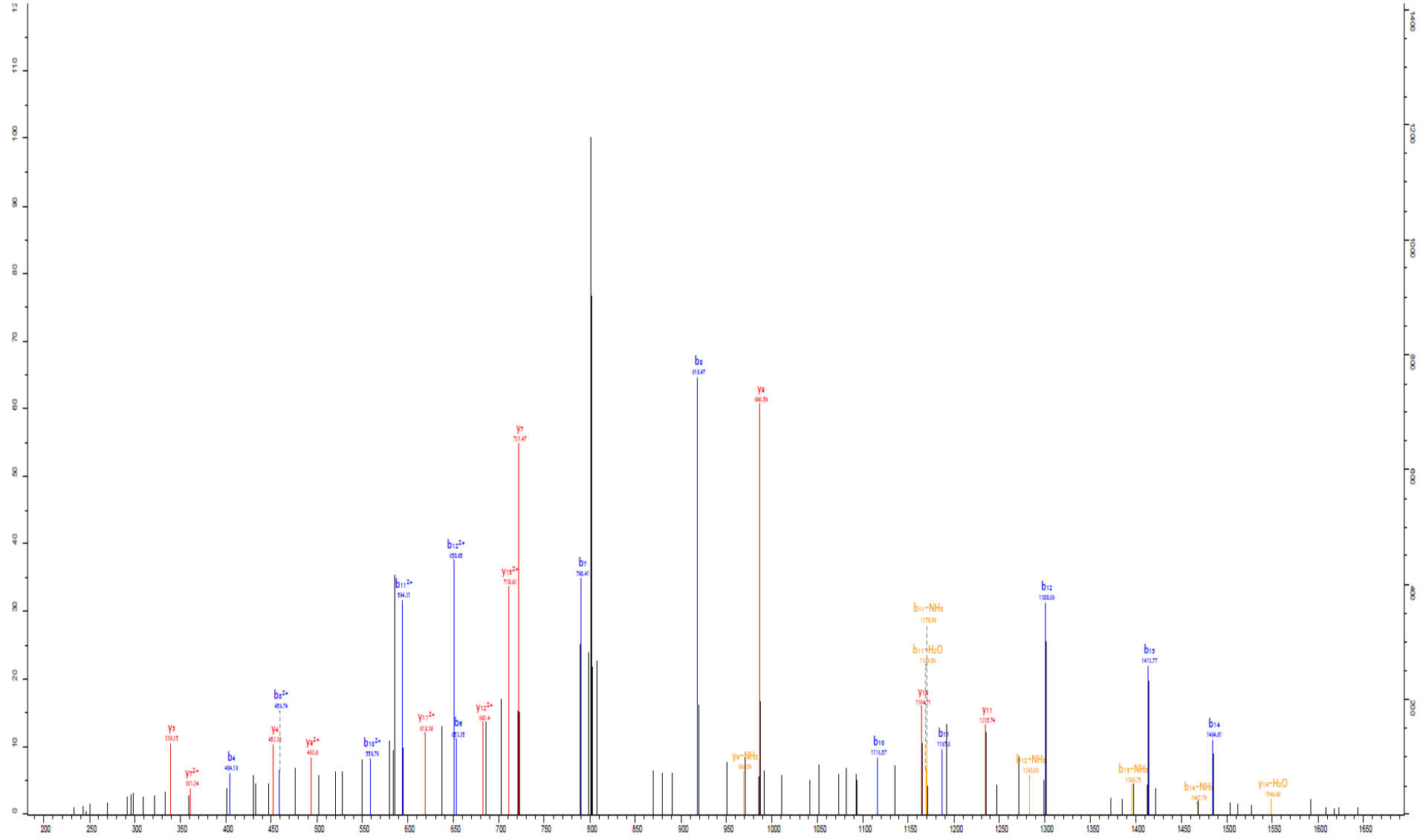
Gene name = **Tcp1**

MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)
1340.5969	1339.7151	670.8022	670.3612

Main Sequence Ions

b	b ⁺		y	y ⁺	
---	---	1	S	11	---
201.1234	---	2	L	10	1252.6831
338.1823	169.5948	3	H	9	1139.5990
453.2092	227.1083	4	D	8	1002.5401
524.2463	262.6268	5	A	7	887.5131
637.3304	319.1688	6	L	6	816.4760
797.3610	399.1842	7	C(Carbamidomethyl)	5	703.3920
896.4295	448.7184	8	V	4	543.3613
995.4979	498.2526	9	V	3	444.2929
1165.6034	583.3053	10	K(Acetyl)	2	345.2245
---	---	11	R	1	175.1190

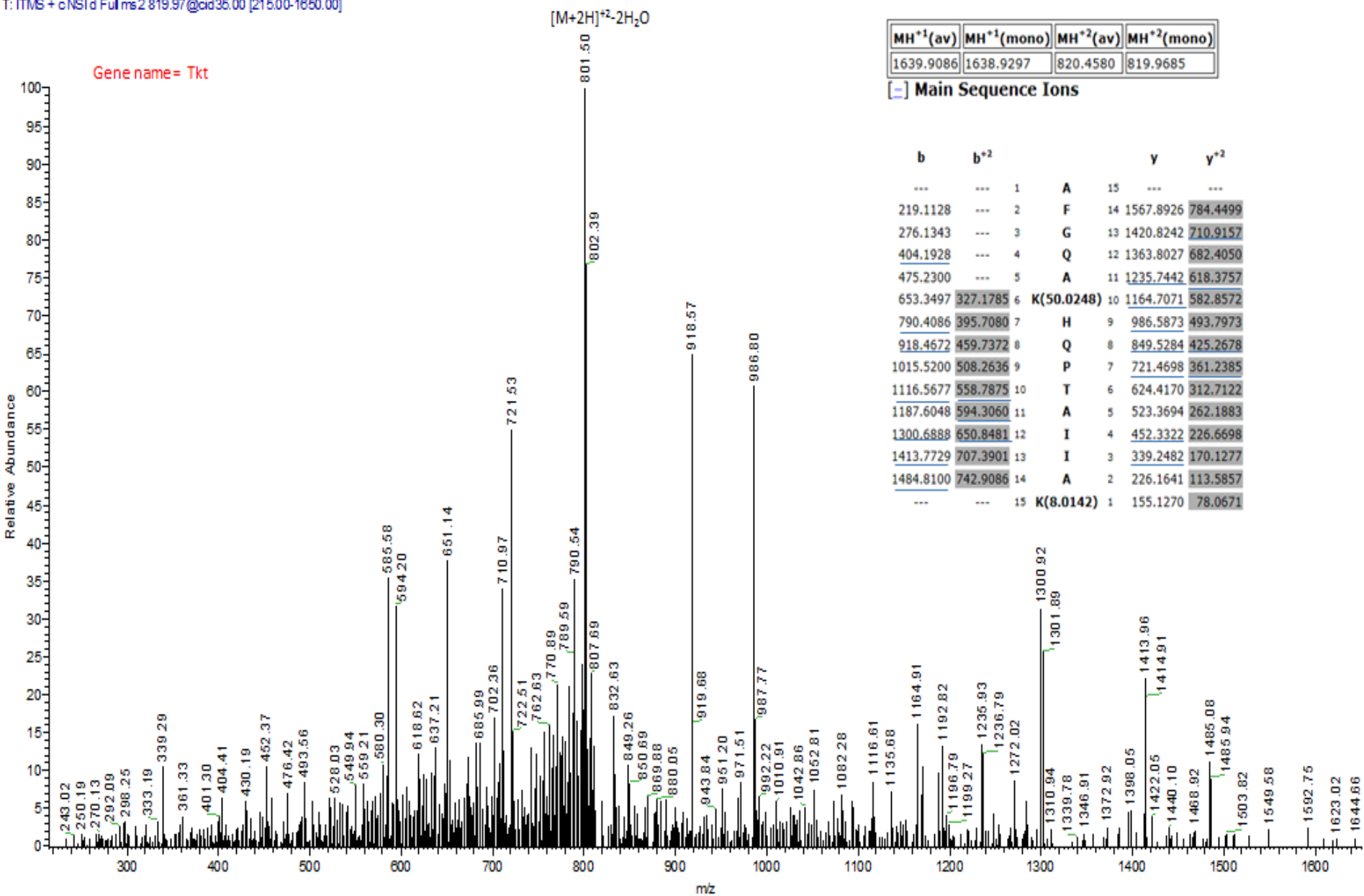




- A F G Q A K H Q P T A I I A K -

Fragmentation mapping:
 - y12+ (G) - y12+ (Q) - y11 (A) - y10 ac (K) - y4 (H) - y2 (Q) - y7 (P)
 - b4 (G) - b6 (A) - b7 (H) - b6 (Q) - b16 (P) - b11 (T) - b12 (A) - b16 (I) - b14 (A) - b14 (K)

Gene name = Tkt



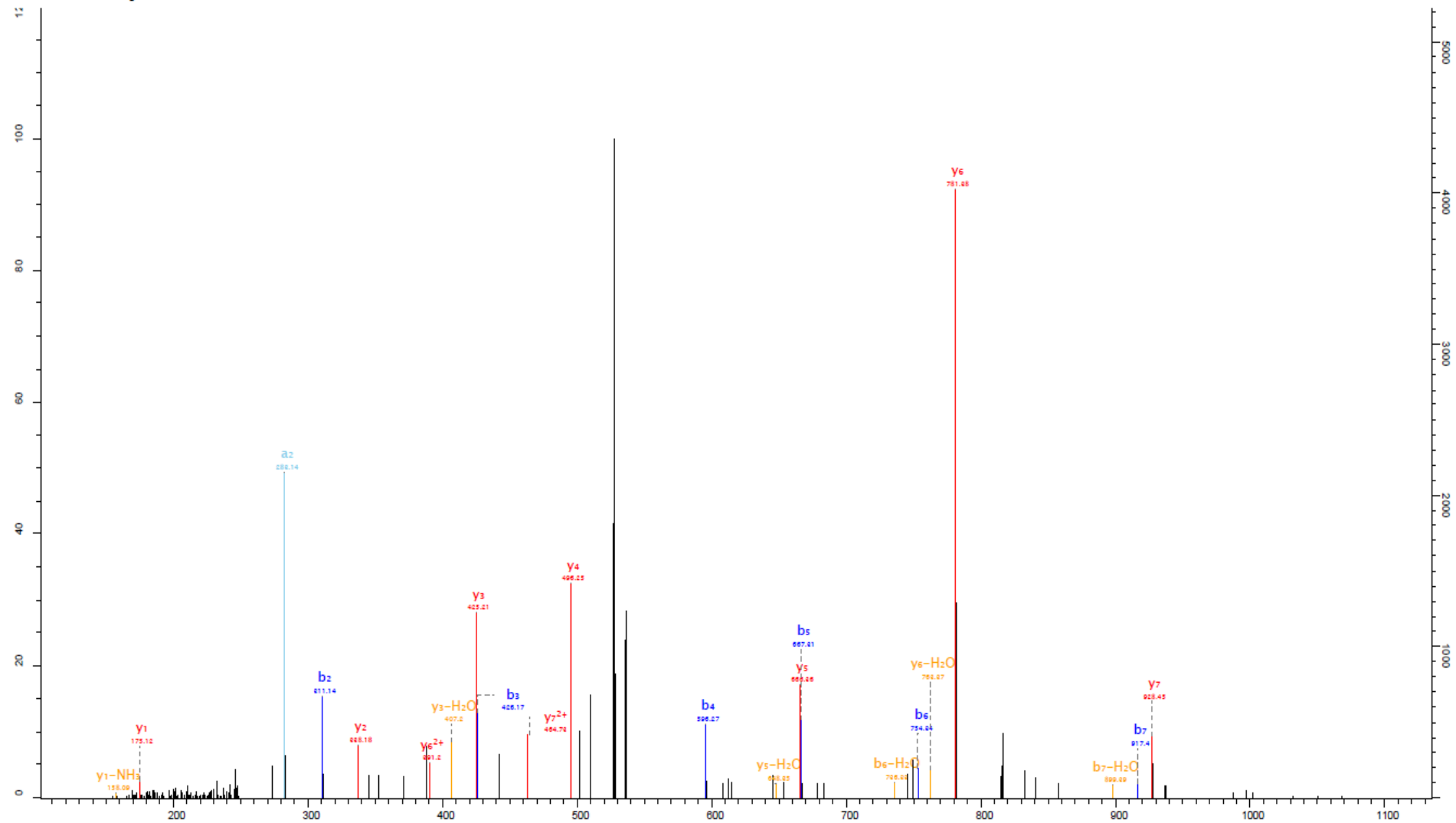
$[M+2H]^{+2}-2H_2O$

MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)
1639.9086	1638.9297	820.4580	819.9685

[-] Main Sequence Ions

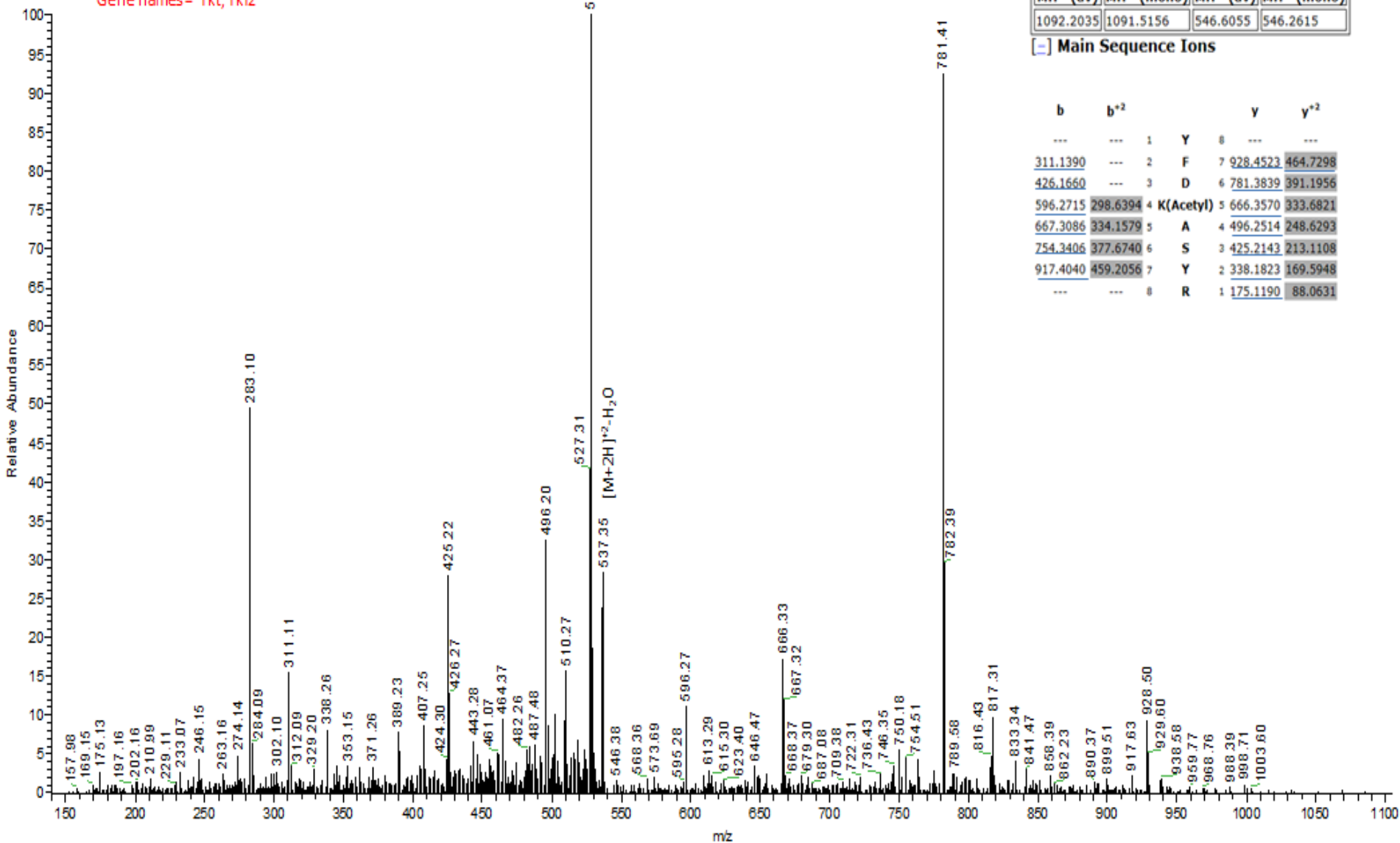
b	b ⁺		y	y ⁺	
---	---	1	A	15	---
219.1128	---	2	F	14	1567.8926
276.1343	---	3	G	13	1420.8242
404.1928	---	4	Q	12	1363.8027
475.2300	---	5	A	11	1235.7442
653.3497	327.1785	6	K(50.0248)	10	1164.7071
790.4086	395.7080	7	H	9	986.5873
918.4672	459.7372	8	Q	8	849.5284
1015.5200	508.2636	9	P	7	721.4698
1116.5677	558.7875	10	T	6	624.4170
1187.6048	594.3060	11	A	5	523.3694
1300.6888	650.8481	12	I	4	452.3322
1413.7729	707.3901	13	I	3	339.2482
1484.8100	742.9086	14	A	2	226.1641
--	--	15	K(8.0142)	1	155.1270

784.4499
710.9157
682.4050
618.3757
582.8572
493.7973
425.2678
361.2385
312.7122
262.1883
226.6698
170.1277
113.5857
78.0671



$[M+2H]^{2+}-2H_2O$

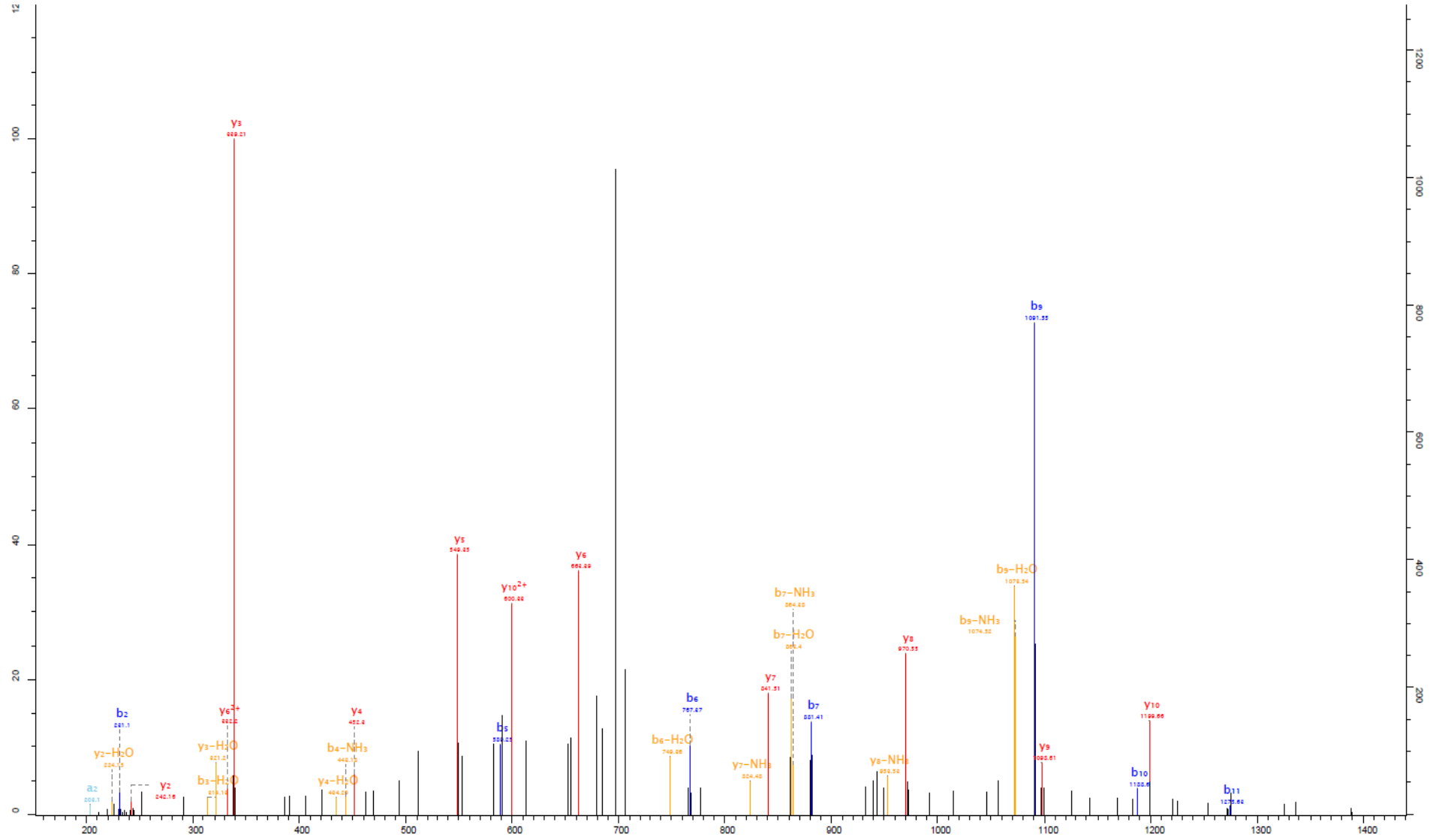
Gene names = Tkt; Tk12



MH ⁺ (av)	MH ⁺ (mono)	MH ²⁺ (av)	MH ²⁺ (mono)
1092.2035	1091.5156	546.6055	546.2615

[-] Main Sequence Ions

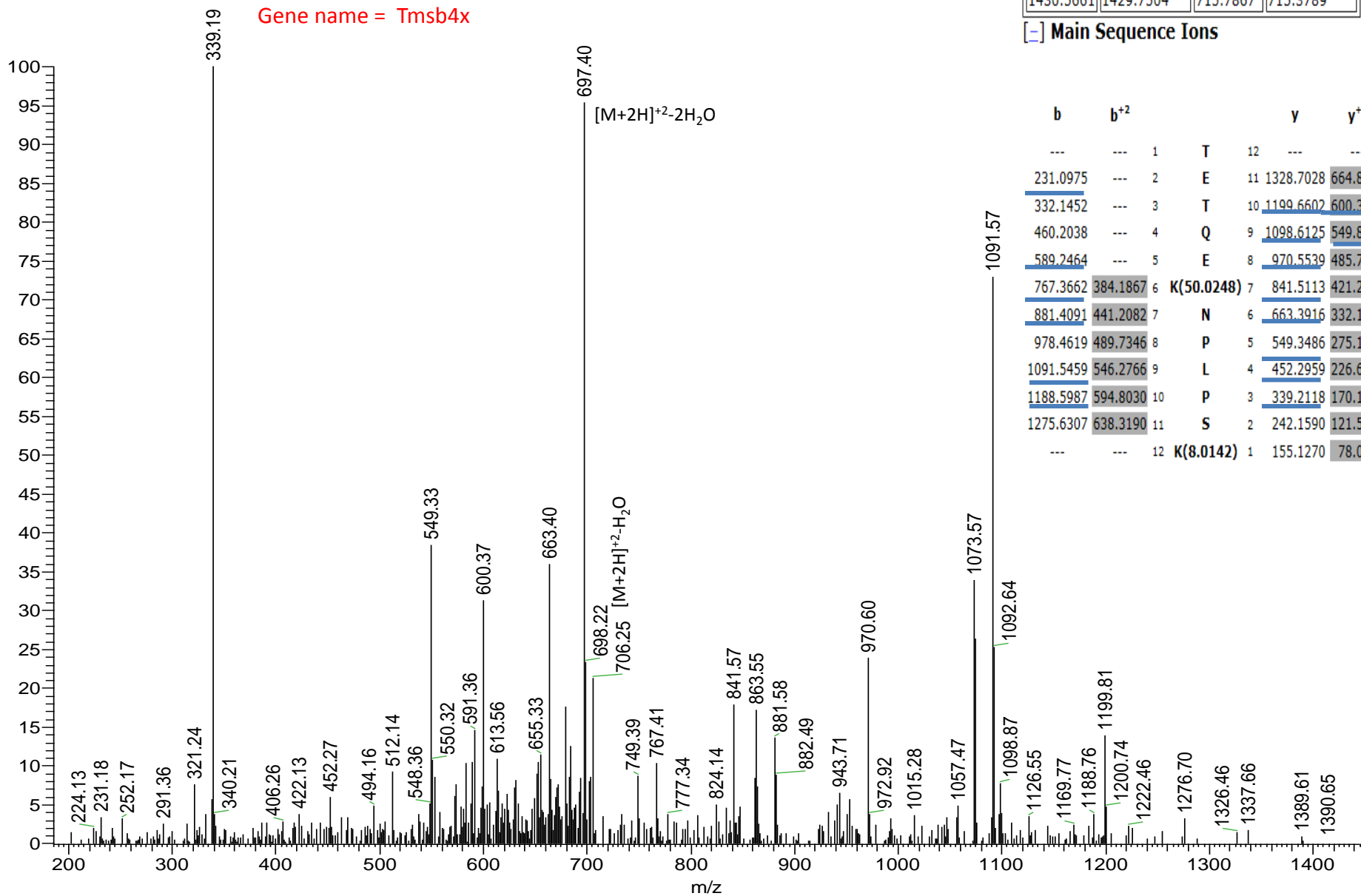
b	b ⁺		y	y ⁺
...	...	1	Y	0
311.1390	...	2	F	7 928.4523 464.7298
426.1660	...	3	D	6 781.3839 391.1956
596.2715	298.6394	4	K(Acetyl)	5 666.3570 333.6821
667.3086	334.1579	5	S	4 496.2514 248.6293
754.3406	377.6740	6	A	3 425.2143 213.1108
917.4040	459.2056	7	Y	2 338.1823 169.5948
...	...	8	R	1 175.1190 88.0631



- T E T Q E K N P L P S K -

b₂
y₁₀
y₉
y₈
y₇
ac
y₆
y₅
y₄
y₃
y₂
b₅
b₆
b₇
b₈
b₁₀
b₁₁

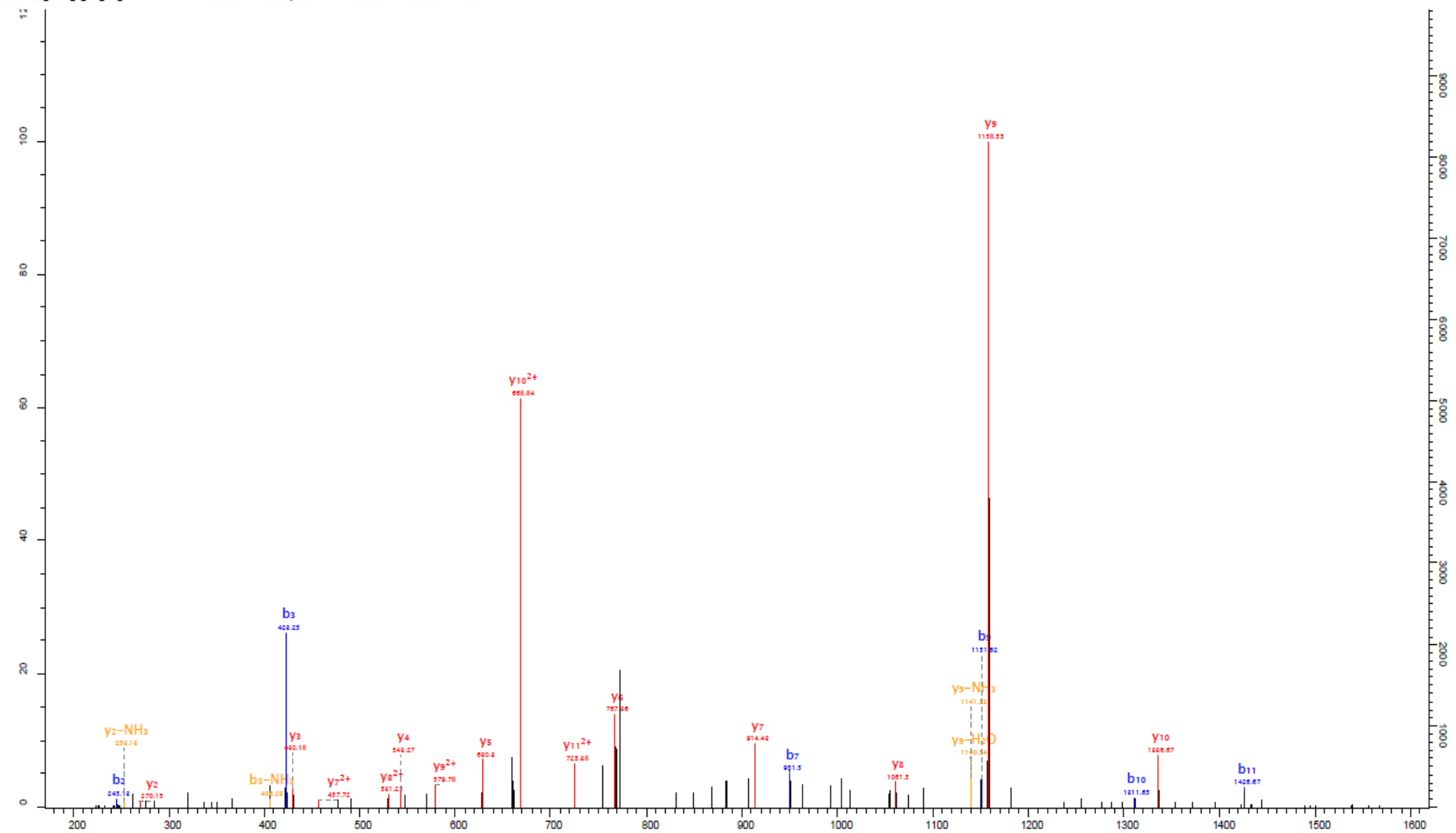
Gene name = Tmsb4x



MH ⁺ (av)	MH ⁺ (mono)	MH ²⁺ (av)	MH ²⁺ (mono)
1430.5661	1429.7504	715.7867	715.3789

[-] Main Sequence Ions

b	b ⁺		y	y ⁺	
---	---	1	T	12	---
231.0975	---	2	E	11	1328.7028
332.1452	---	3	T	10	1199.6602
460.2038	---	4	Q	9	1098.6125
589.2464	---	5	E	8	970.5539
767.3662	384.1867	6	K(50.0248)	7	841.5113
881.4091	441.2082	7	N	6	663.3916
978.4619	489.7346	8	P	5	549.3486
1091.5459	546.2766	9	L	4	452.2959
1188.5987	594.8030	10	P	3	339.2118
1275.6307	638.3190	11	S	2	242.1590
---	---	12	K(8.0142)	1	155.1270



- M I K P F F H S L C D K -

y11²⁺
y10 ac
y9
y8
y7
y6
y5
y4
y3
y2

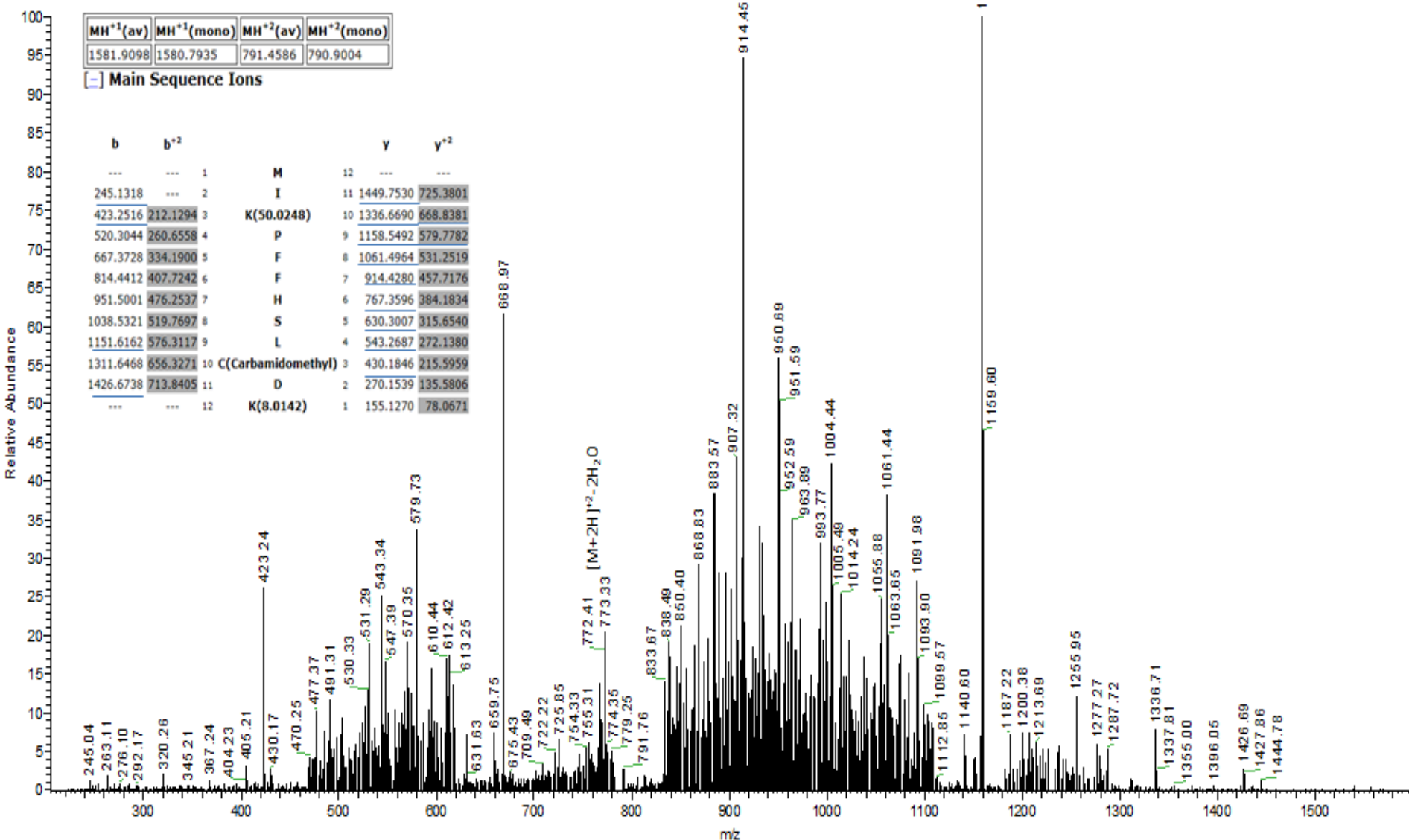
b2
b3
b7
b9
b10
b11

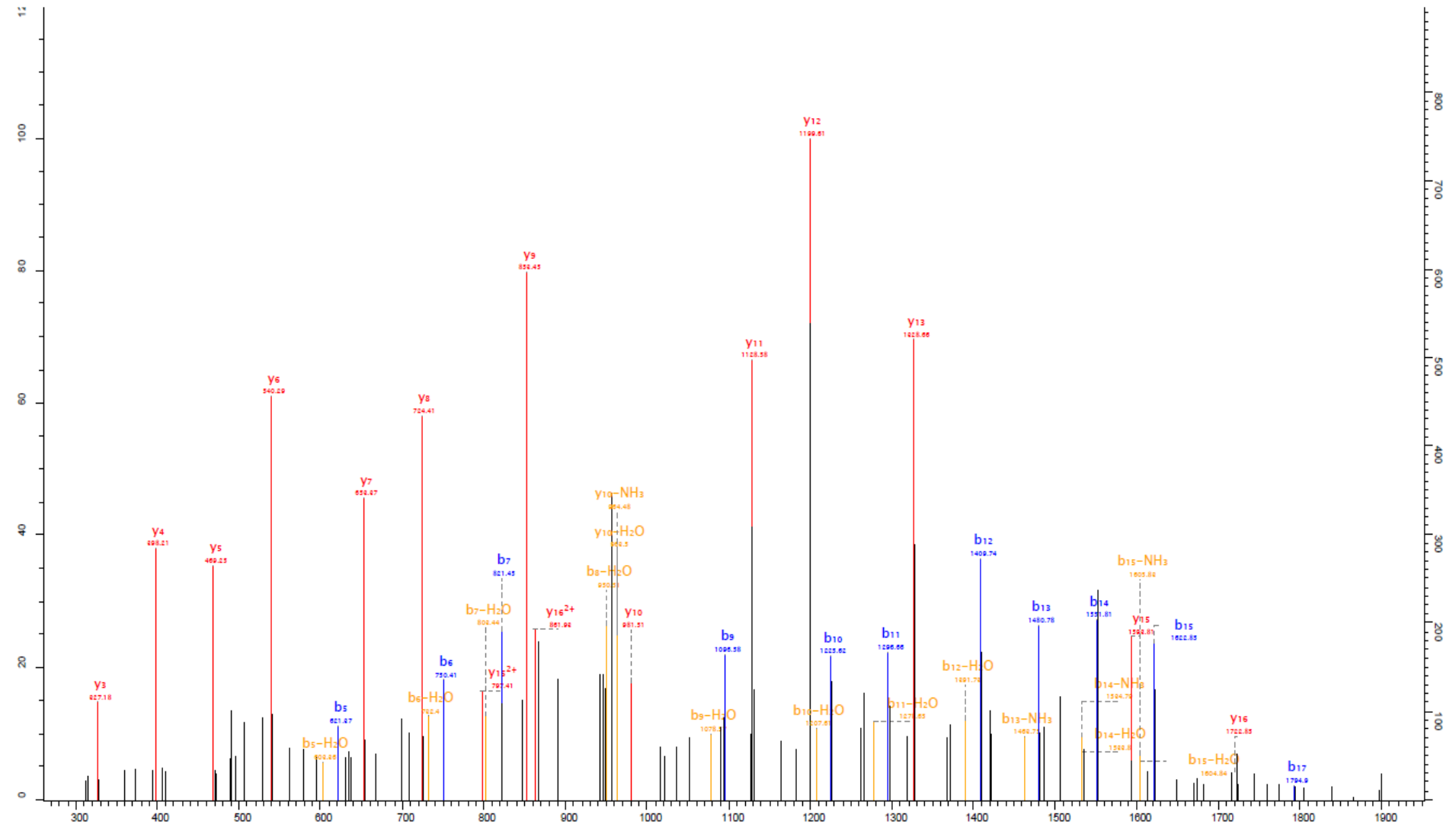
Gene name = Txn

MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)
1581.9098	1580.7935	791.4586	790.9004

[-] Main Sequence Ions

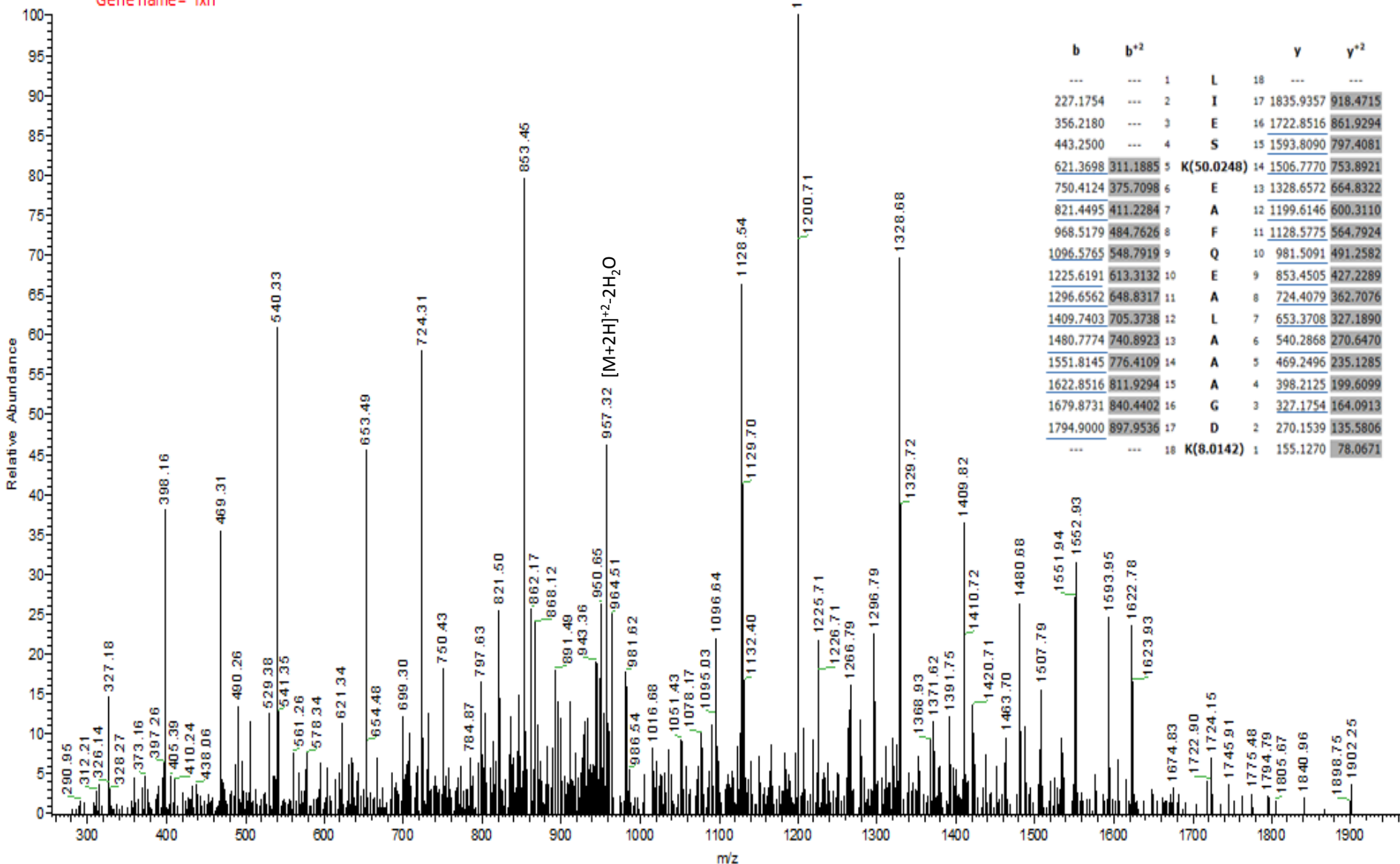
b	b ⁺ 2		y	y ⁺ 2	
---	---	1	M	12	---
245.1318	---	2	I	11	1449.7530
423.2516	212.1294	3	K(50.0248)	10	1336.6690
520.3044	260.6558	4	P	9	1158.5492
667.3728	334.1900	5	F	8	1061.4964
814.4412	407.7242	6	F	7	914.4280
951.5001	476.2537	7	H	6	767.3596
1038.5321	519.7697	8	S	5	630.3007
1151.6162	576.3117	9	L	4	543.2687
1311.6468	656.3271	10	C(Carbamidomethyl)	3	430.1846
1426.6738	713.8405	11	D	2	270.1539
---	---	12	K(8.0142)	1	155.1270





- L I E S ac Y16 Y15 K E A F Q Y10 Y9 Y8 Y7 Y6 Y5 Y4 Y3 b2 b4 b7 b8 b10 b11 b12 b13 b14 b15 b17 -

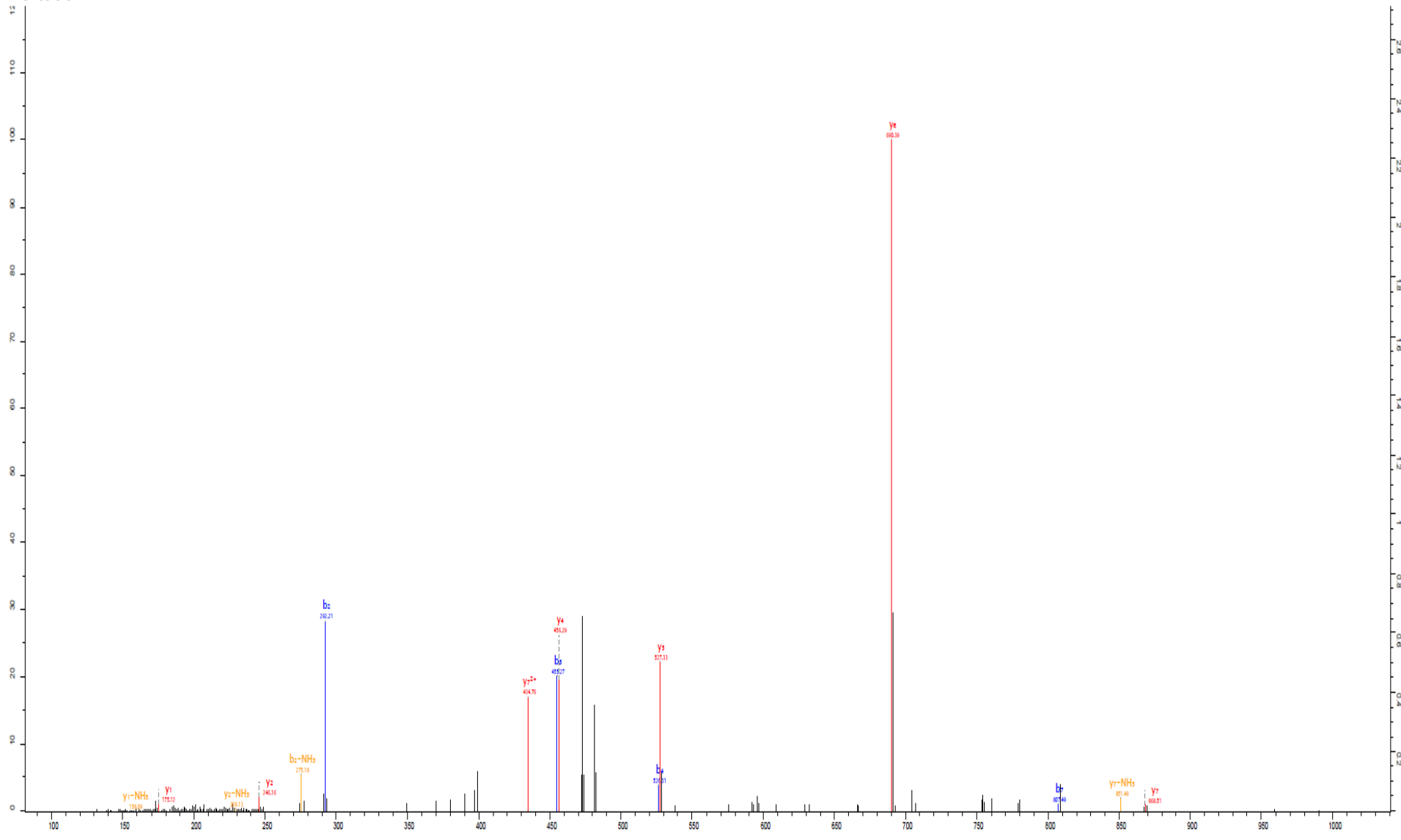
Gene name = Txn



MH ⁺ (av)	MH ⁺ (mono)	MH ²⁺ (av)	MH ²⁺ (mono)
1950.1681	1949.0197	975.5878	975.0135

[-] Main Sequence Ions

b	b ⁺	y	y ⁺
---	---	1	L
---	---	18	---
227.1754	---	2	I
17	1835.9357	918.4715	
356.2180	---	3	E
16	1722.8516	861.9294	
443.2500	---	4	S
15	1593.8090	797.4081	
621.3698	311.1885	5	K(50.0248)
14	1506.7770	753.8921	
750.4124	375.7098	6	E
13	1328.6572	664.8322	
821.4495	411.2284	7	A
12	1199.6146	600.3110	
968.5179	484.7626	8	F
11	1128.5775	564.7924	
1096.5765	548.7919	9	Q
10	981.5091	491.2582	
1225.6191	613.3132	10	E
9	853.4505	427.2289	
1296.6562	648.8317	11	A
8	724.4079	362.7076	
1409.7403	705.3738	12	L
7	653.3708	327.1890	
1480.7774	740.8923	13	A
6	540.2868	270.6470	
1551.8145	776.4109	14	A
5	469.2496	235.1285	
1622.8516	811.9294	15	A
4	398.2125	199.6099	
1679.8731	840.4402	16	G
3	327.1754	164.0913	
1794.9000	897.9536	17	D
2	270.1539	135.5806	
---	---	18	K(8.0142)
1	155.1270	78.0671	



- L

y1
ac
K
b2

y4
Y
bx

y3
A
bx

y4
P
bx

y2
A
bx

y1
R
bx

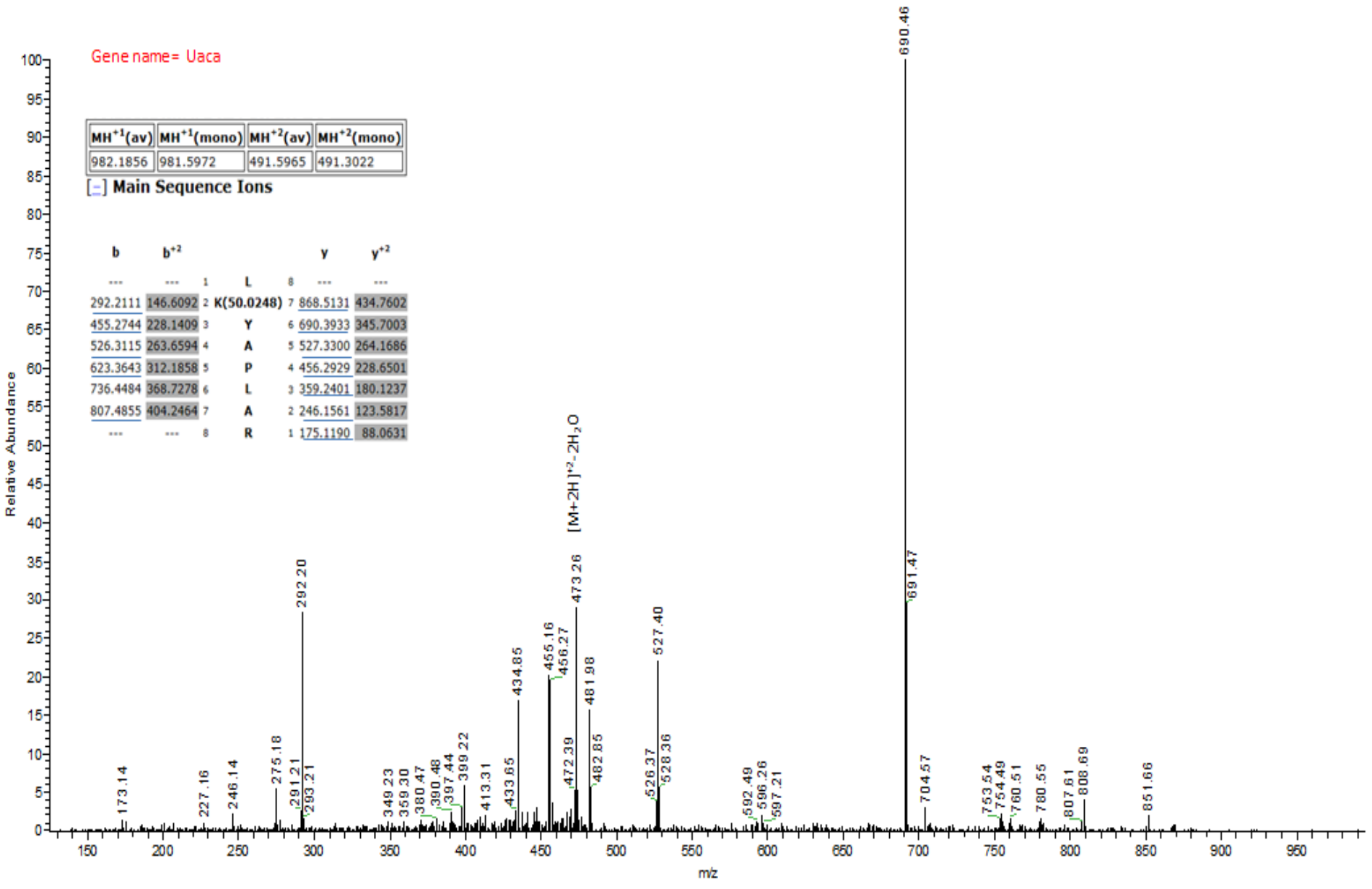
 -

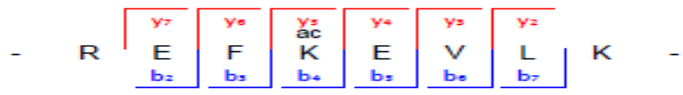
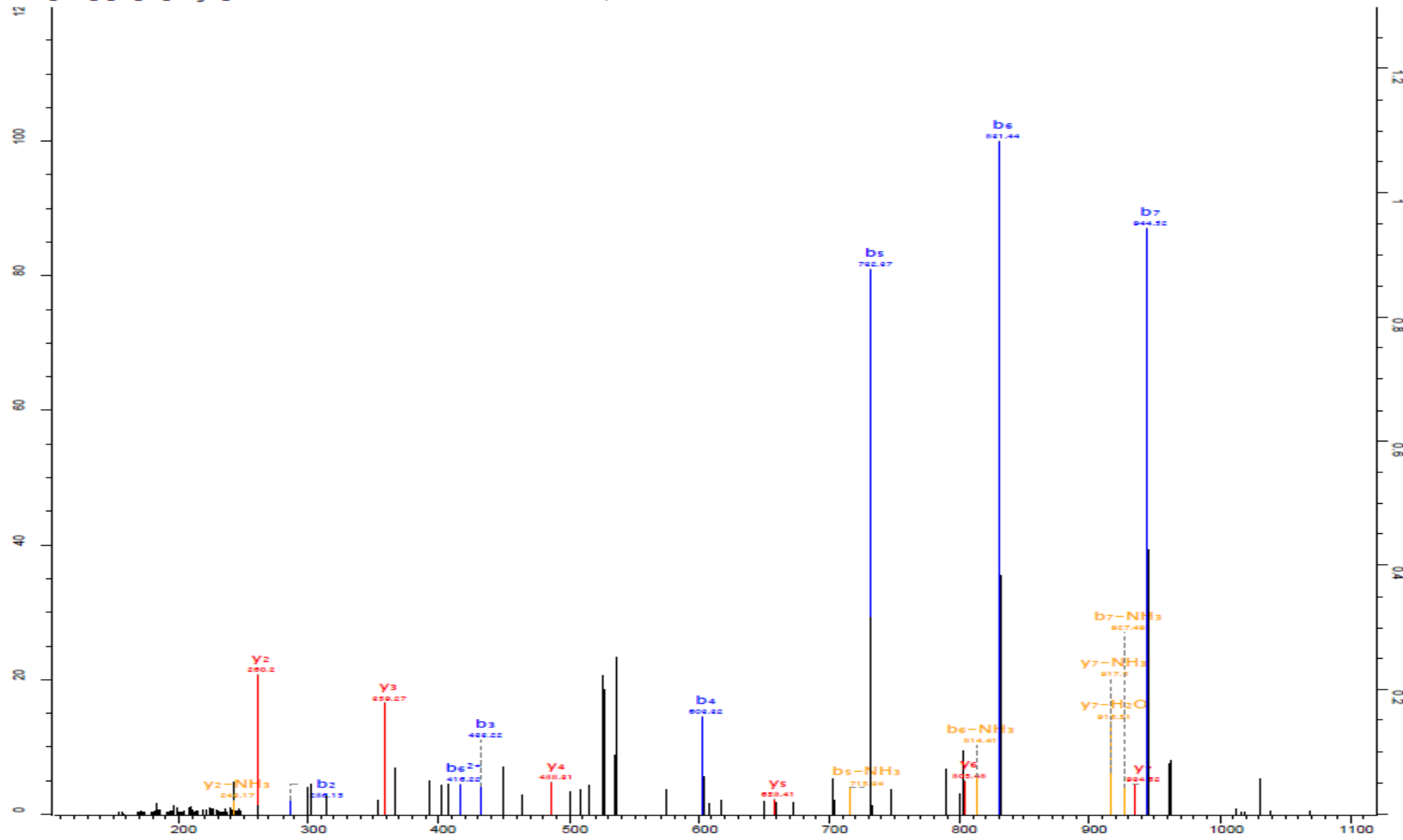
Gene name= Uaca

MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)
982.1856	981.5972	491.5965	491.3022

[-] Main Sequence Ions

b	b ⁺ 2	y	y ⁺ 2
...	...	1	L
292.2111	146.6092	2	K(50.0248)
455.2744	228.1409	3	Y
526.3115	263.6594	4	A
623.3643	312.1858	5	P
736.4484	368.7278	6	L
807.4855	404.2464	7	A
...	...	8	R



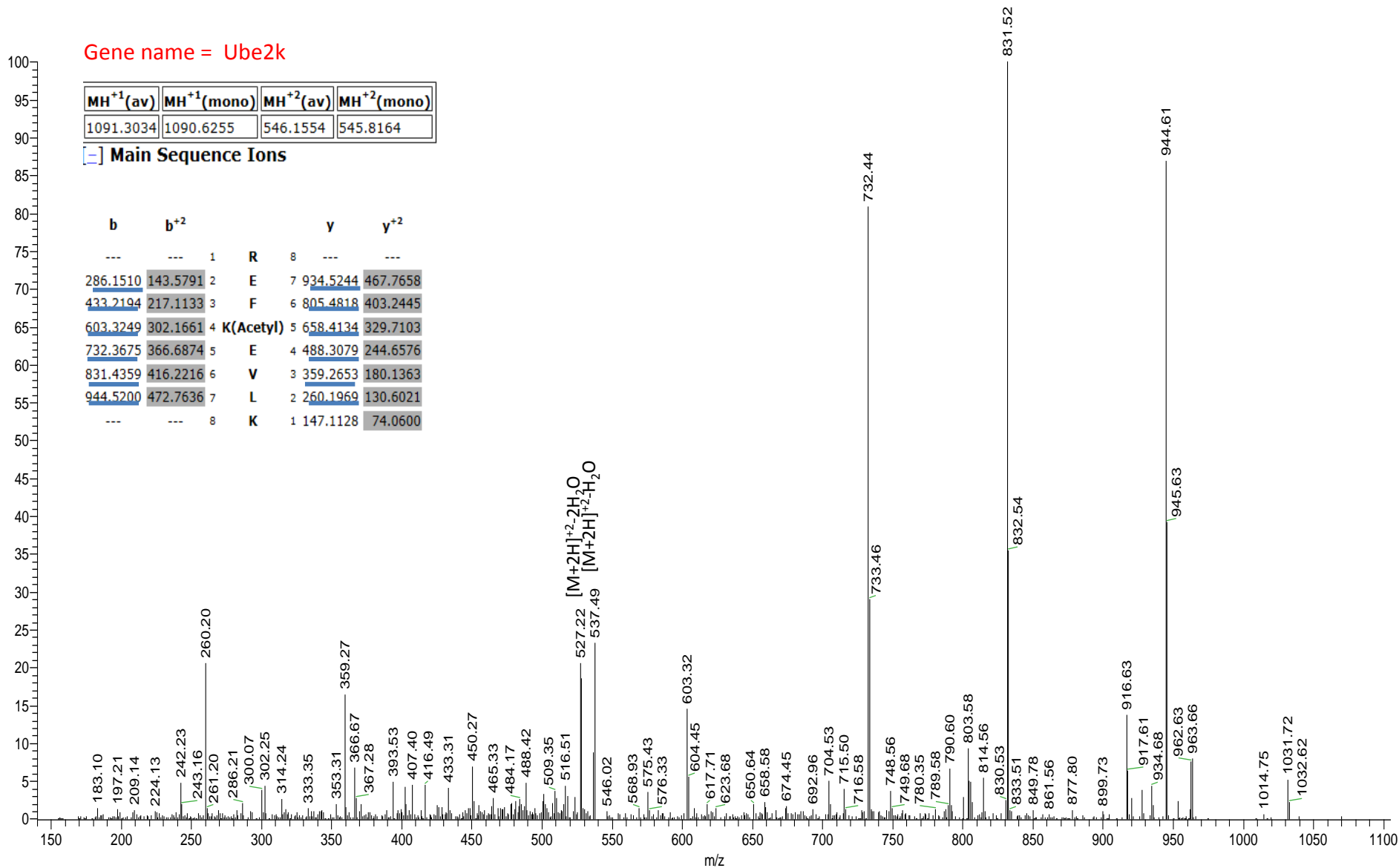


Gene name = Ube2k

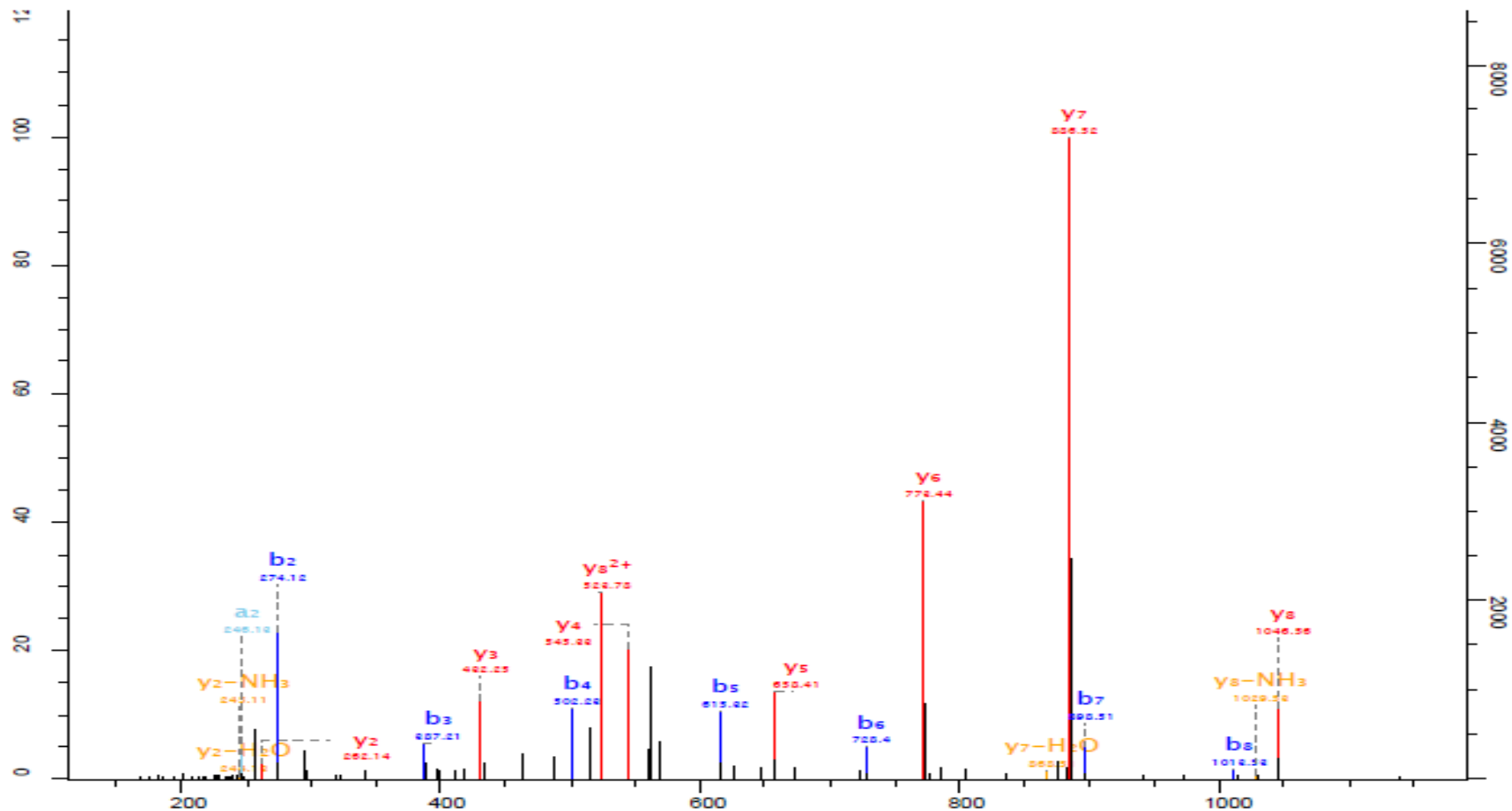
MH ⁺¹ (av)	MH ⁺¹ (mono)	MH ⁺² (av)	MH ⁺² (mono)
1091.3034	1090.6255	546.1554	545.8164

[-] Main Sequence Ions

b	b ⁺²		y	y ⁺²
---	---	1	R	8
286.1510	143.5791	2	E	7
433.2194	217.1133	3	F	6
603.3249	302.1661	4	K(Acetyl)	5
732.3675	366.6874	5	E	4
831.4359	416.2216	6	V	3
944.5200	472.7636	7	L	2
---	---	8	K	1



[M+2H]⁺²-2H₂O
 [M+2H]⁺²-H₂O



- I

y8
C
b2

y7
L
b3

y6
D
b4

y5
I
b5

y4
L
b6

y3
ac
K
b7

y2
D
b8

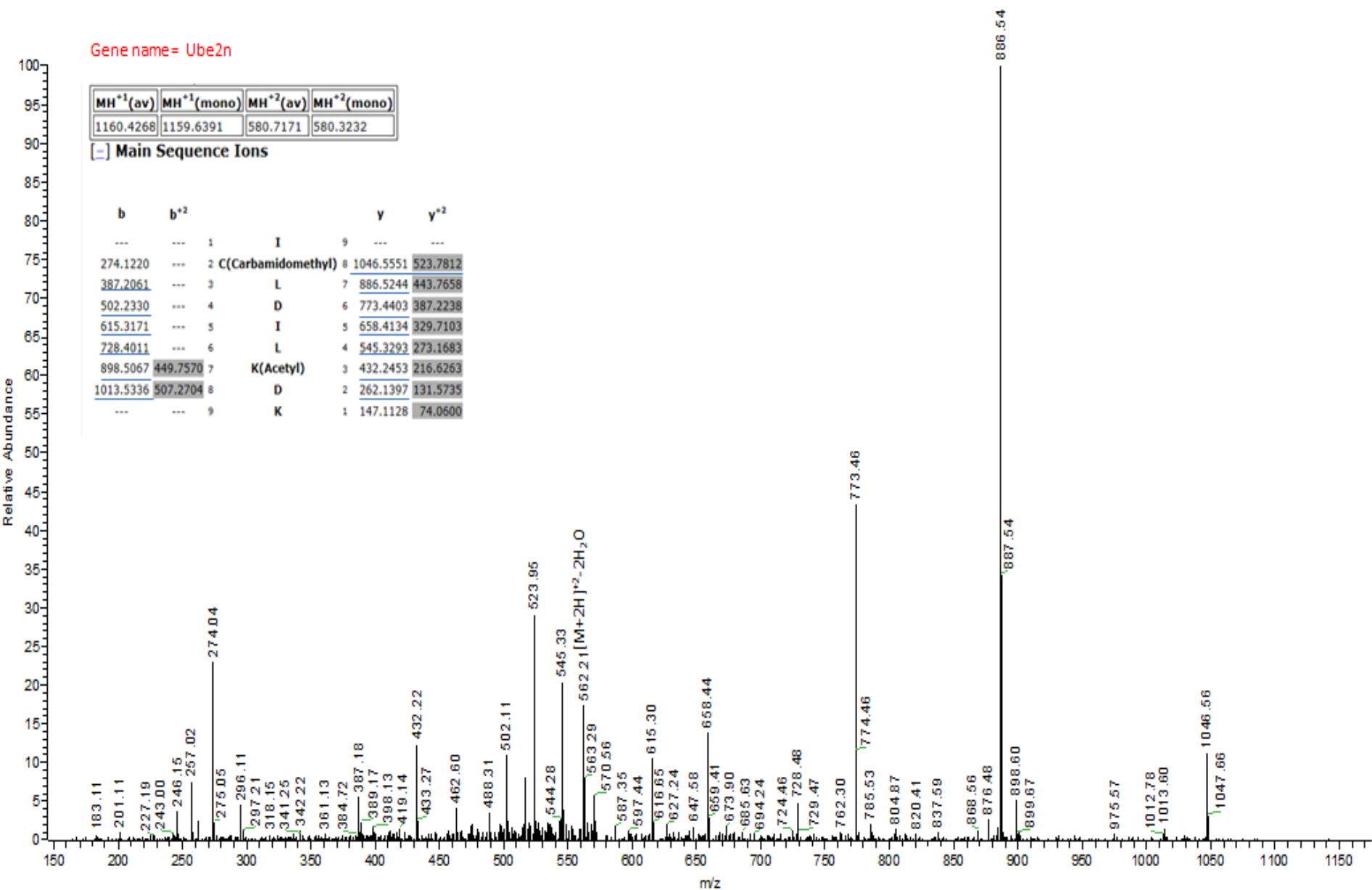
 K -

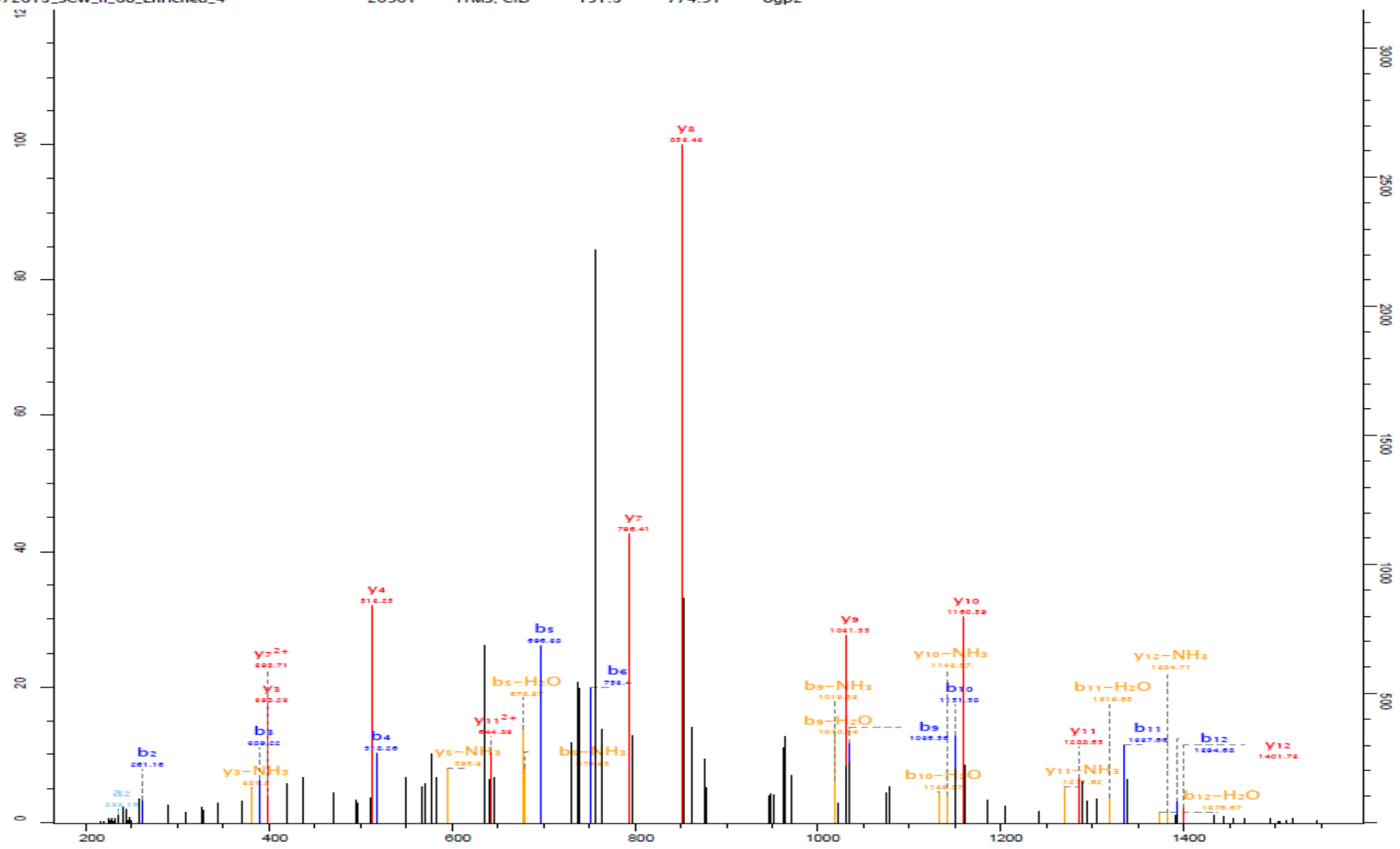
Gene name = Ube2n

MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)
1160.4268	1159.6391	580.7171	580.3232

(-) Main Sequence Ions

b	b ⁺		y	y ⁺
---	---	1	I	9
---	---	2	C(Carbamidomethyl)	---
274.1220	---	3	L	7
387.2061	---	4	D	6
502.2330	---	5	I	5
615.3171	---	6	L	4
728.4011	---	7	K(Acetyl)	3
898.5067	449.7570	8	D	2
1013.5336	507.2704	9	K	1





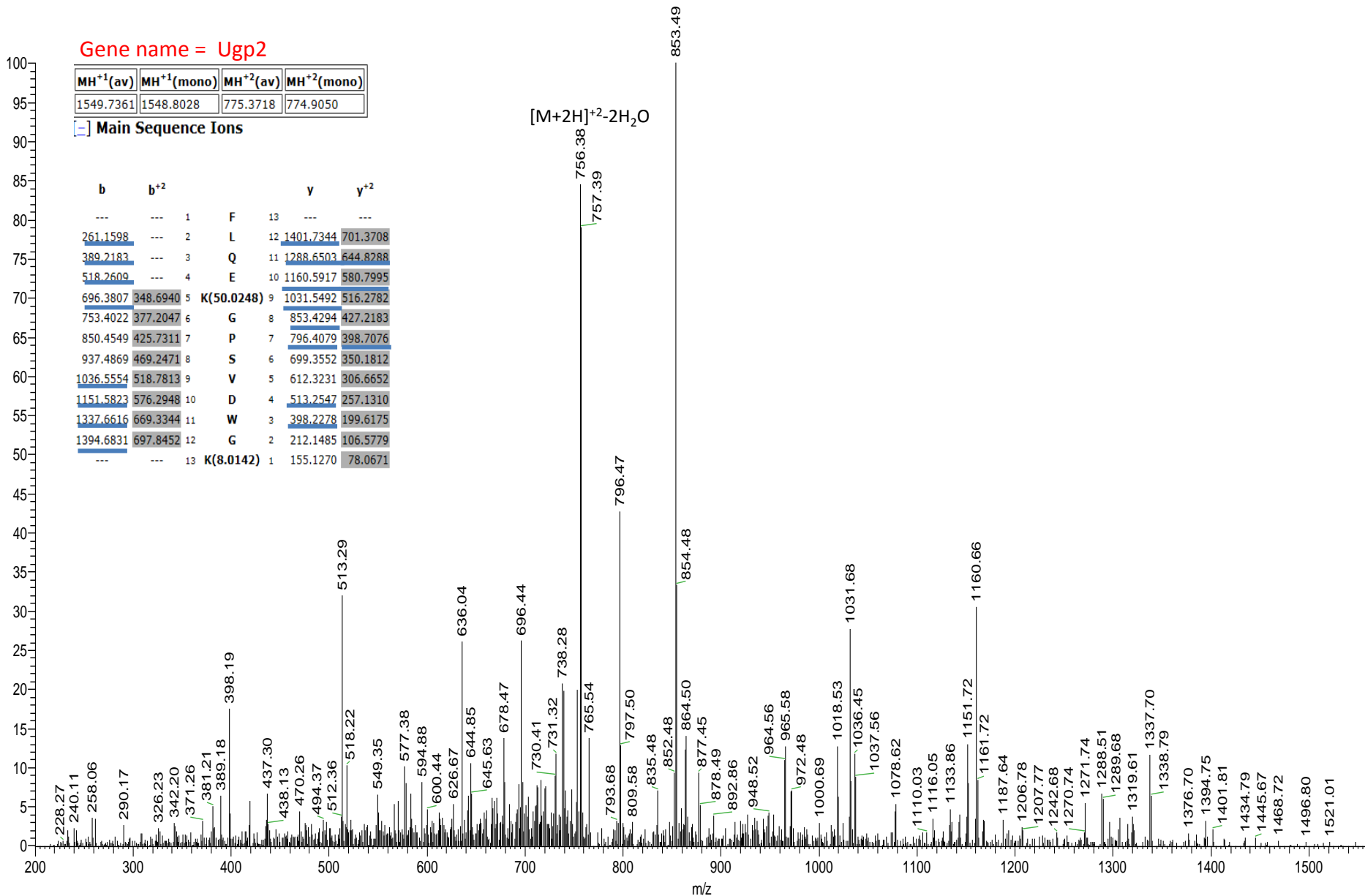
- F Y12
L
b2 Y11
Q
b3 Y10
E
b4 y3
ac
K
b5 Y4
G
b6 Y7
P S V
b9 Y4
D
b10 Y3
W
b11 G
b12 K -

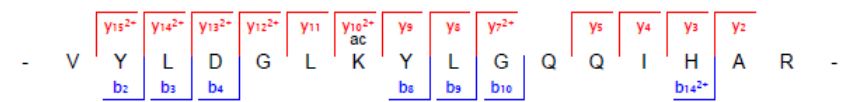
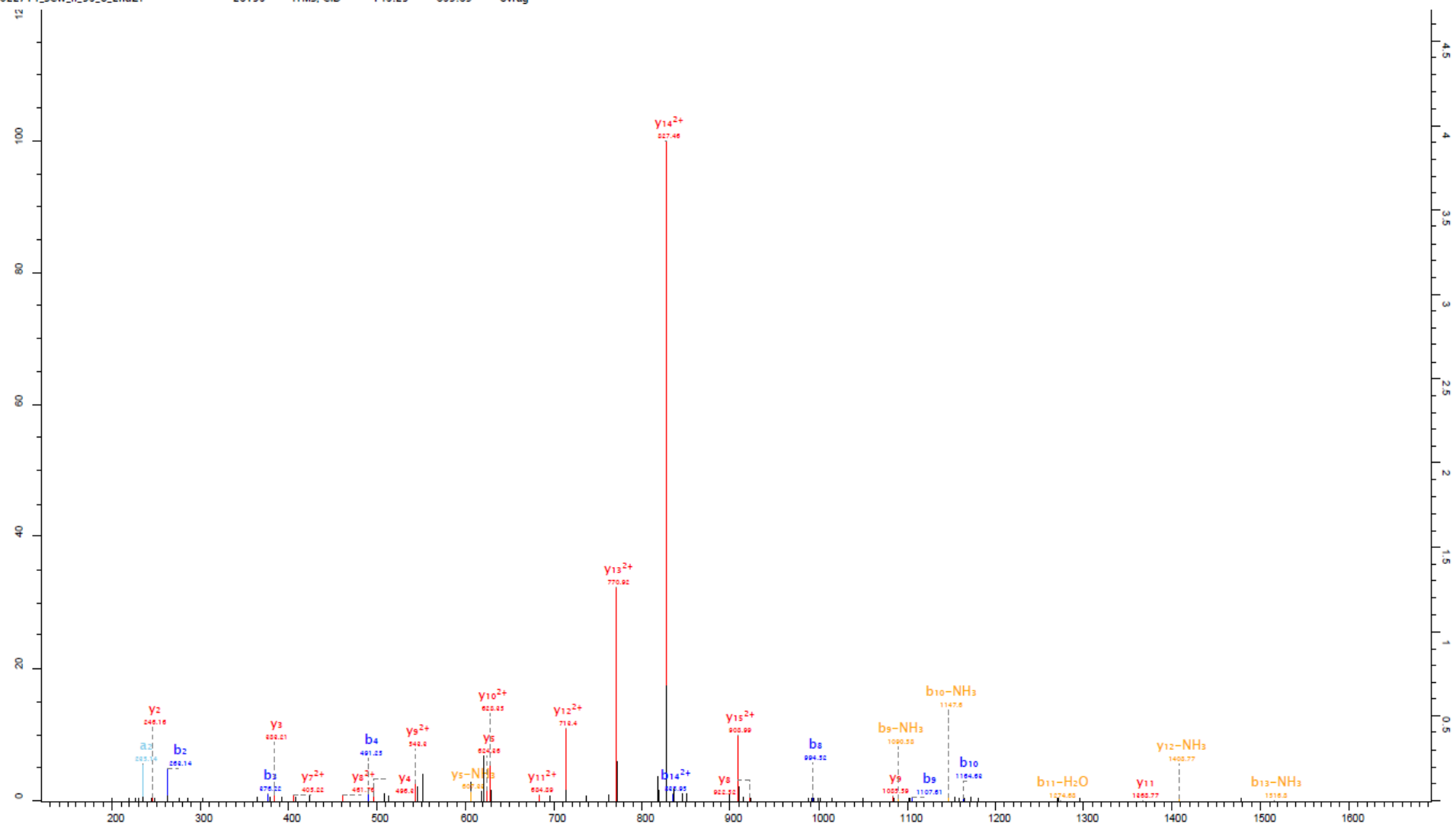
Gene name = Ugp2

MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)
1549.7361	1548.8028	775.3718	774.9050

[-] Main Sequence Ions

b	b ⁺ 2			y	y ⁺ 2
---	---	1	F	13	---
261.1598	---	2	L	12	1401.7344 701.3708
389.2183	---	3	Q	11	1288.6503 644.8288
518.2609	---	4	E	10	1160.5917 580.7995
696.3807	348.6940	5	K(50.0248)	9	1031.5492 516.2782
753.4022	377.2047	6	G	8	853.4294 427.2183
850.4549	425.7311	7	P	7	796.4079 398.7076
937.4869	469.2471	8	S	6	699.3552 350.1812
1036.5554	518.7813	9	V	5	612.3231 306.6652
1151.5823	576.2948	10	D	4	513.2547 257.1310
1337.6616	669.3344	11	W	3	398.2278 199.6175
1394.6831	697.8452	12	G	2	212.1485 106.5779
---	---	13	K(8.0142)	1	155.1270 78.0671

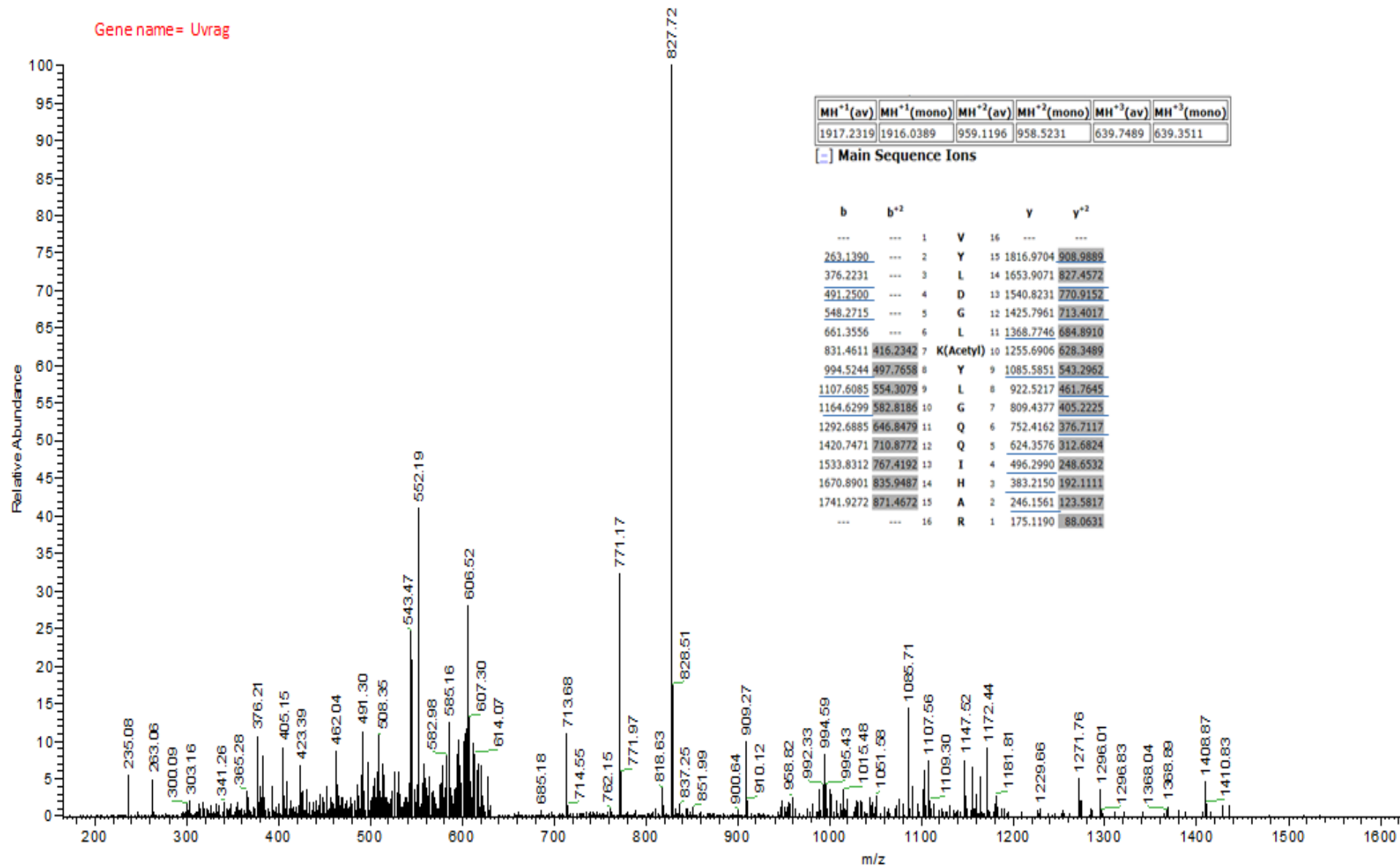




x10

x20

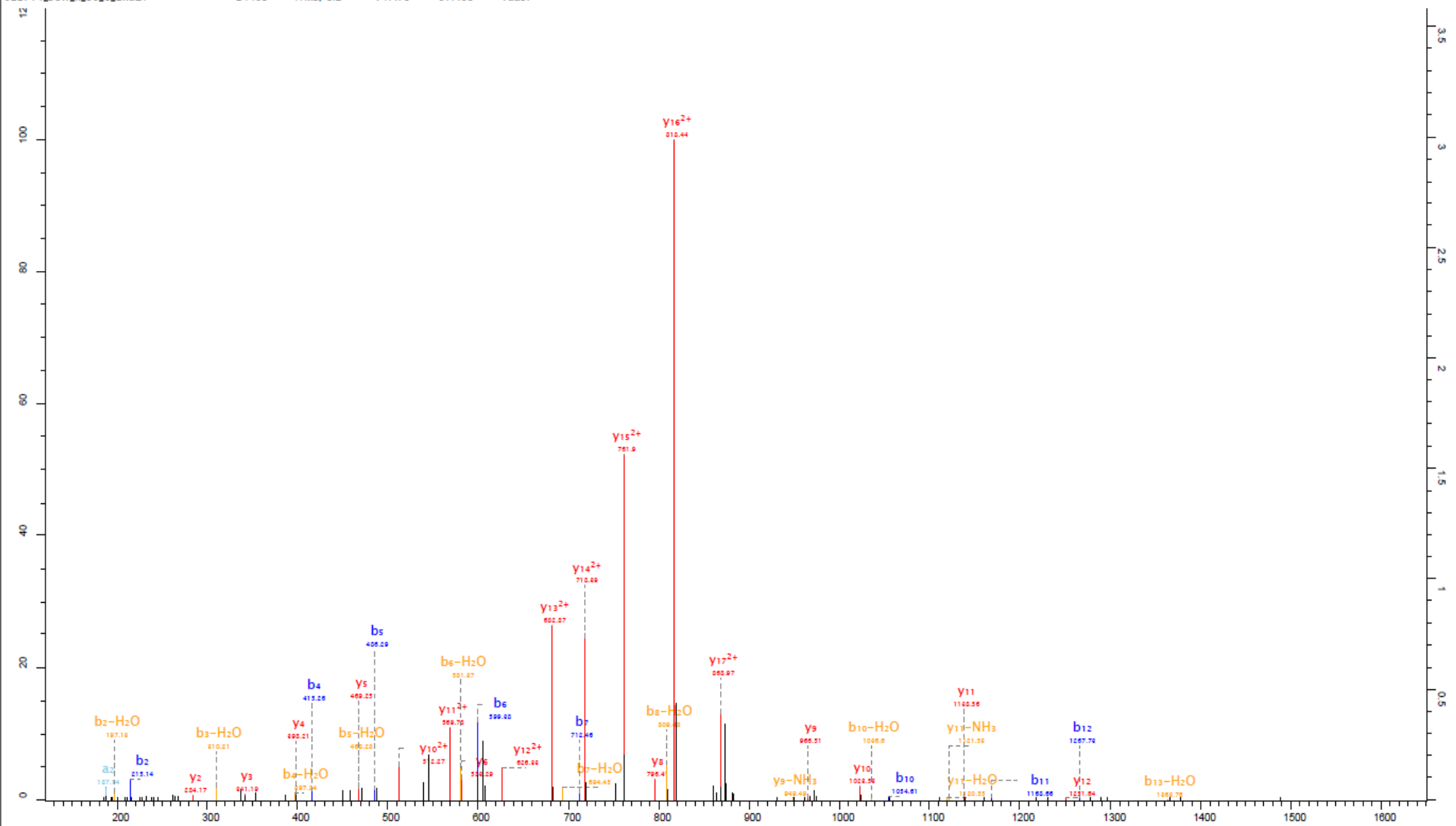
Gene name= Uvrag



MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)	MH ⁺ 3(av)	MH ⁺ 3(mono)
1917.2319	1916.0389	959.1196	958.5231	639.7489	639.3511

[-] Main Sequence Ions

b	b ⁺ 2		y	y ⁺ 2	
...	...	1	V	16	...
263.1390	...	2	Y	15	1816.9704
376.2231	...	3	L	14	1653.9071
491.2500	...	4	D	13	1540.8231
548.2715	...	5	G	12	1425.7961
661.3556	...	6	L	11	1368.7746
831.4611	416.2342	7	K(Acetyl)	10	1255.6906
994.5244	497.7658	8	Y	9	1085.5851
1107.6085	554.3079	9	L	8	922.5217
1164.6299	582.8186	10	G	7	809.4377
1292.6885	646.8479	11	Q	6	752.4162
1420.7471	710.8772	12	Q	5	624.3576
1533.8312	767.4192	13	I	4	496.2990
1670.8901	835.9487	14	H	3	383.2150
1741.9272	871.4672	15	A	2	246.1561
...	...	16	R	1	175.1190



- L T L S A L L D G K N V N A G G H K -

y17²⁺
y16²⁺
y15²⁺
y14²⁺
y13²⁺
y12
y11
y10
y8
y6
y5
y4
y3
y2

b2
b4
b5
b6
b7
b10
b11
b12

x10

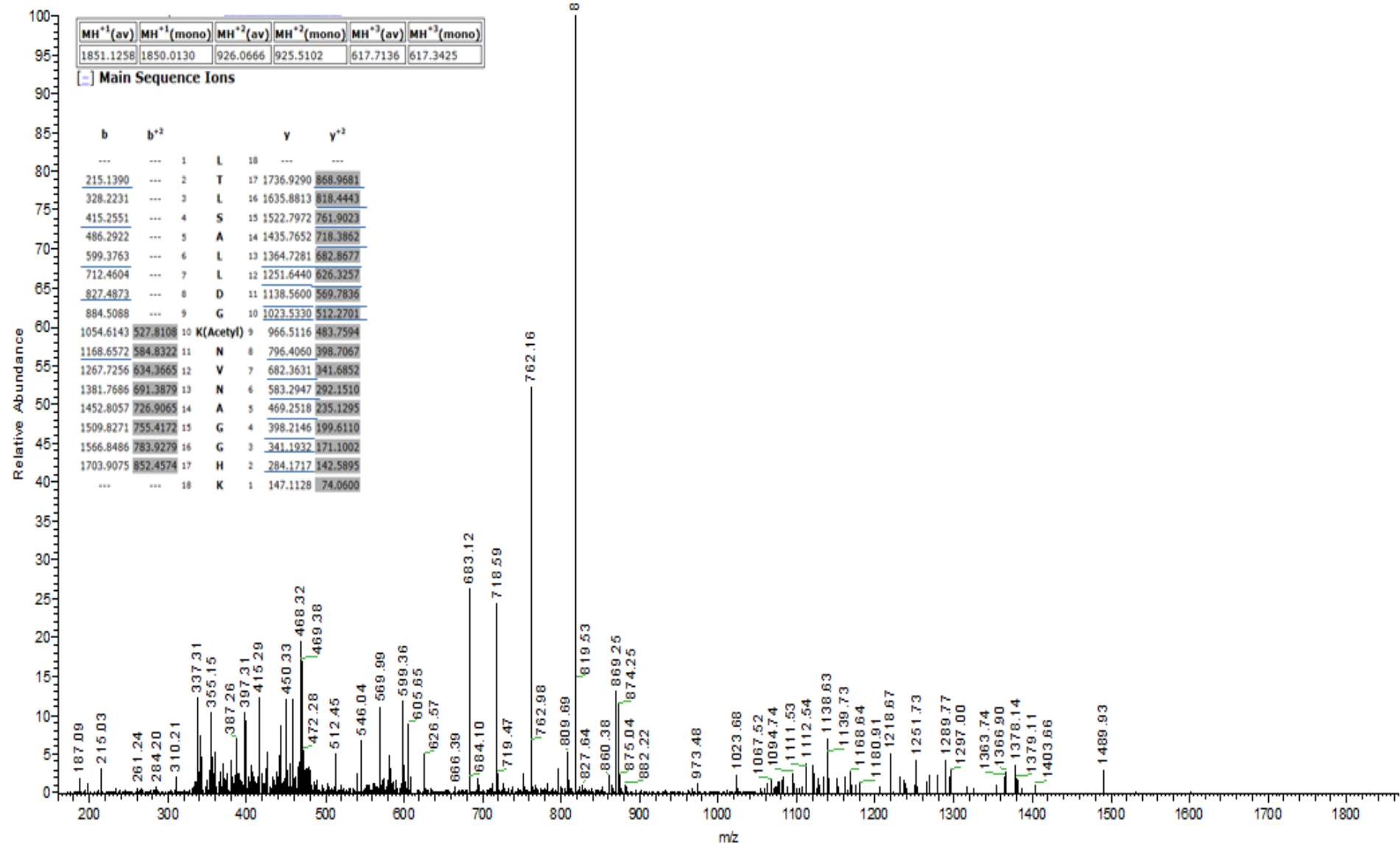
x20

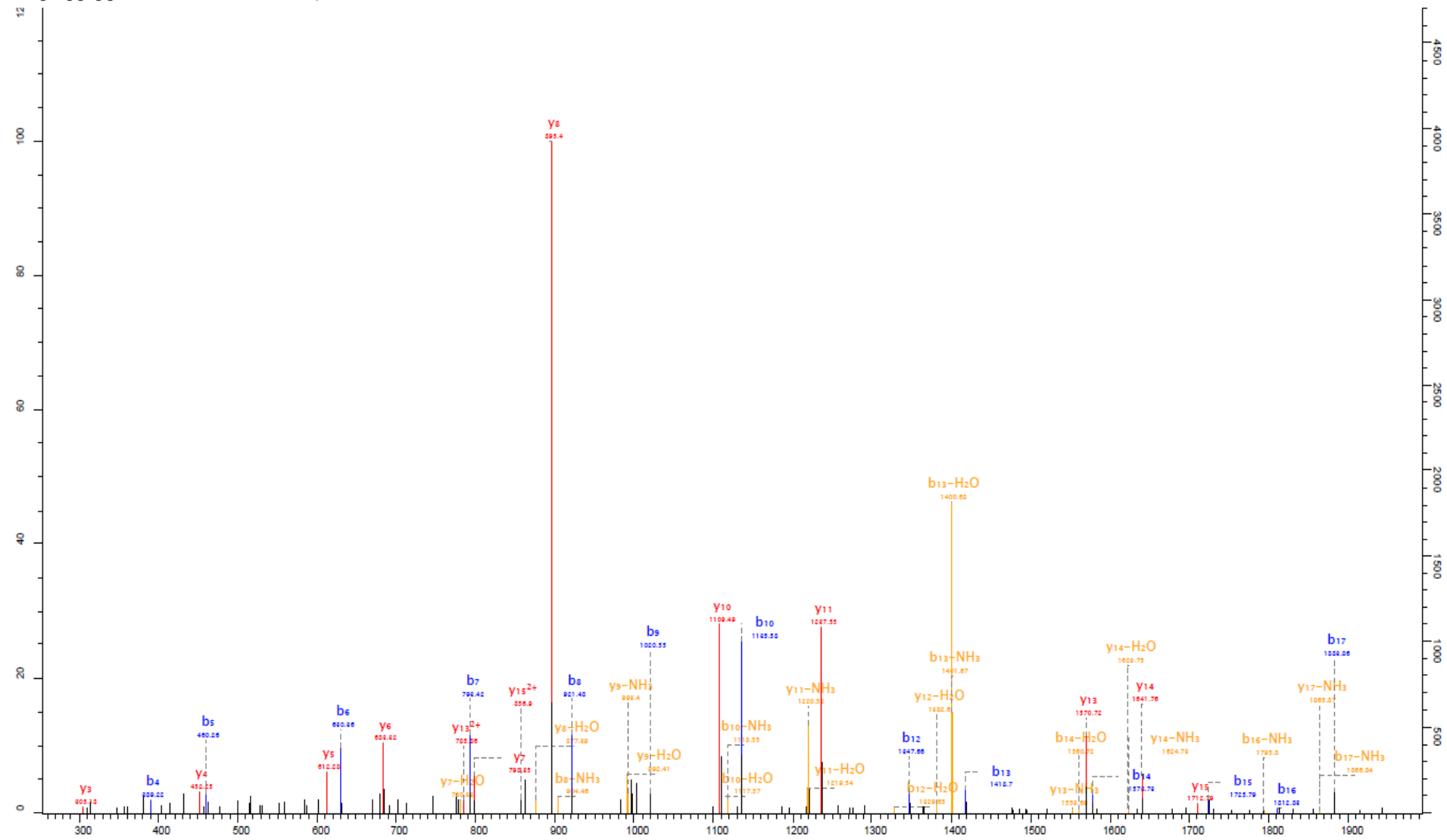
Gene name= *Vdac1*

MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)	MH ⁺ 3(av)	MH ⁺ 3(mono)
1851.1258	1850.0130	926.0666	925.5102	617.7136	617.3425

Main Sequence Ions

b	b ⁺		y	y ⁺	
---	---	1	L	18	---
215.1390	---	2	T	17	1736.9290 868.9681
328.2231	---	3	L	16	1635.8813 818.4443
415.2551	---	4	S	15	1522.7972 761.9023
486.2922	---	5	A	14	1435.7652 718.3862
599.3763	---	6	L	13	1364.7281 682.8677
712.4604	---	7	L	12	1251.6440 626.3257
827.4873	---	8	D	11	1138.5600 569.7836
884.5088	---	9	G	10	1023.5330 512.2701
1054.6143	527.8108	10	K(Acetyl)	9	966.5116 483.7594
1168.6572	584.8322	11	N	8	796.4060 398.7067
1267.7256	634.3665	12	V	7	682.3631 341.6852
1381.7686	691.3879	13	N	6	583.2947 292.1510
1452.8057	726.9065	14	A	5	469.2518 235.1295
1509.8271	755.4172	15	G	4	398.2146 199.6110
1566.8486	783.9279	16	G	3	341.1932 171.1002
1703.9075	852.4574	17	H	2	284.1717 142.5895
---	---	18	K	1	147.1128 74.0600





- F G I A A K Y Q V D P D A C F S A K -

y15
y14
y13 ac
y11
y10
y8
y7
y6
y5
y4
y3

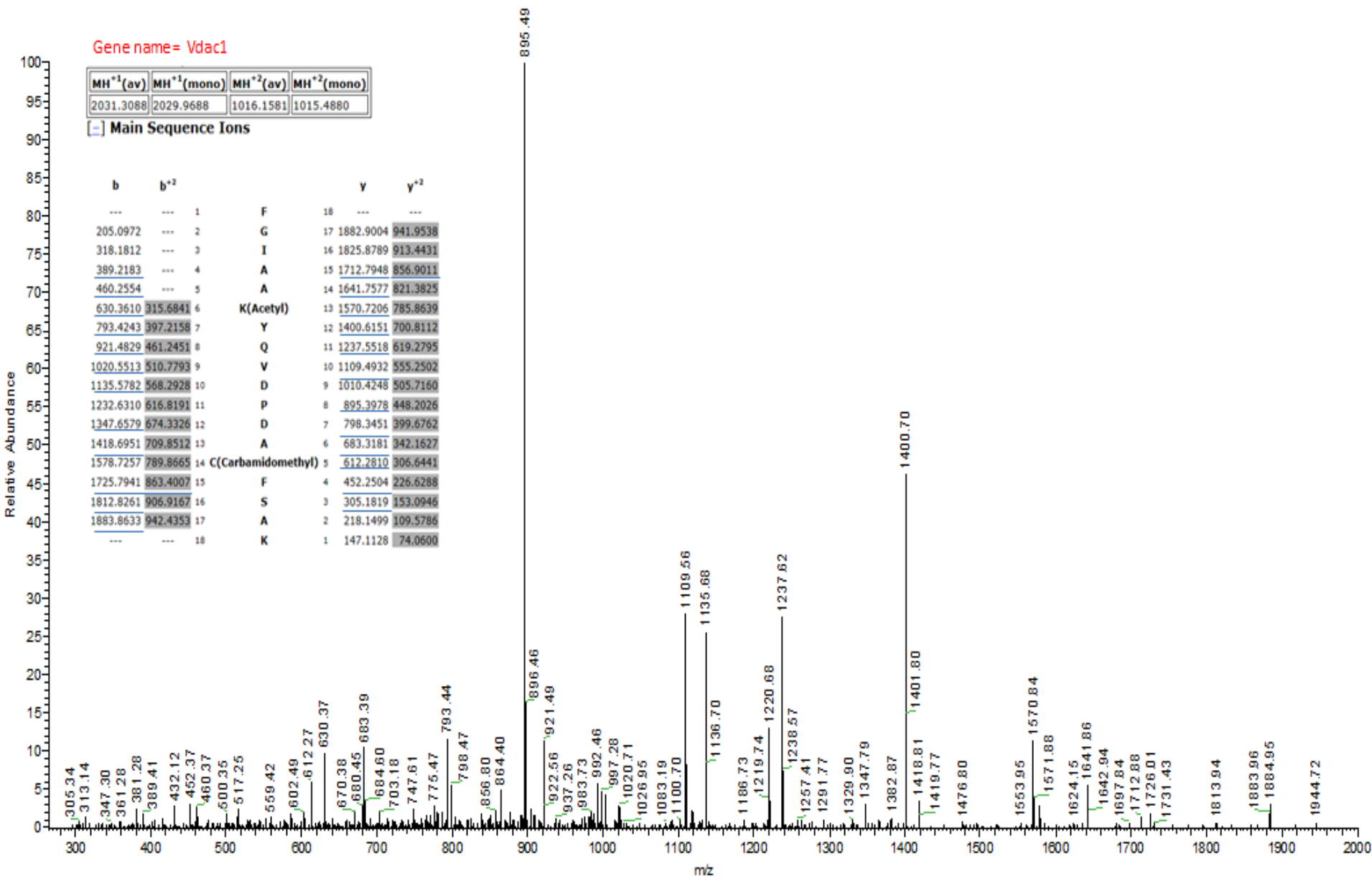
b4
b5
b6
b7
b8
b9
b10
b12
b13
b14
b15
b16
b17

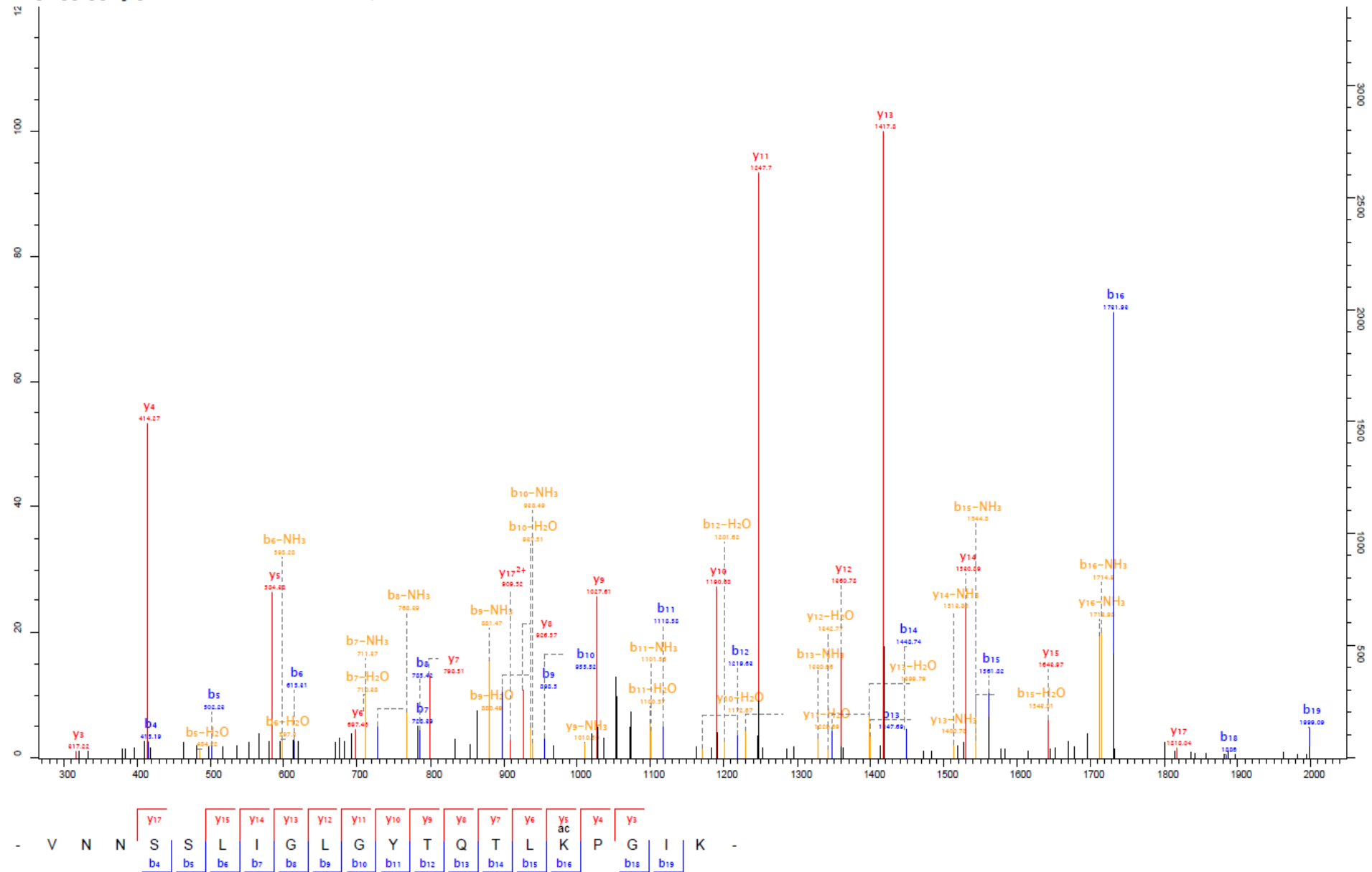
Gene name = *Vdac1*

MH ⁺ (av)	MH ⁺ (mono)	MH ⁺ (av)	MH ⁺ (mono)
2031.3088	2029.9688	1016.1581	1015.4880

Main Sequence Ions

b	b ⁺		y	y ⁺	
---	---	1	F	18	---
205.0972	---	2	G	17	1882.9004 941.9538
318.1812	---	3	I	16	1825.8789 913.4431
389.2183	---	4	A	15	1712.7948 856.9011
460.2554	---	5	A	14	1641.7577 821.3825
630.3610	315.6841	6	K(Acetyl)		
793.4243	397.2158	7	Y	12	1400.6151 700.8112
921.4829	461.2451	8	Q	11	1237.5518 619.2795
1020.5513	510.7793	9	V	10	1109.4932 555.2502
1135.5782	568.2928	10	D	9	1010.4248 505.7160
1232.6310	616.8191	11	P	8	895.3978 448.2026
1347.6579	674.3326	12	D	7	798.3451 399.6762
1418.6951	709.8512	13	A	6	683.3181 342.1627
1578.7257	789.8665	14	C(Carbamidomethyl)		
1725.7941	863.4007	15	F	4	452.2504 226.6288
1812.8261	906.9167	16	S	3	305.1819 153.0946
1883.8633	942.4353	17	A	2	218.1499 109.5786
--	--	18	K	1	147.1128 74.0600



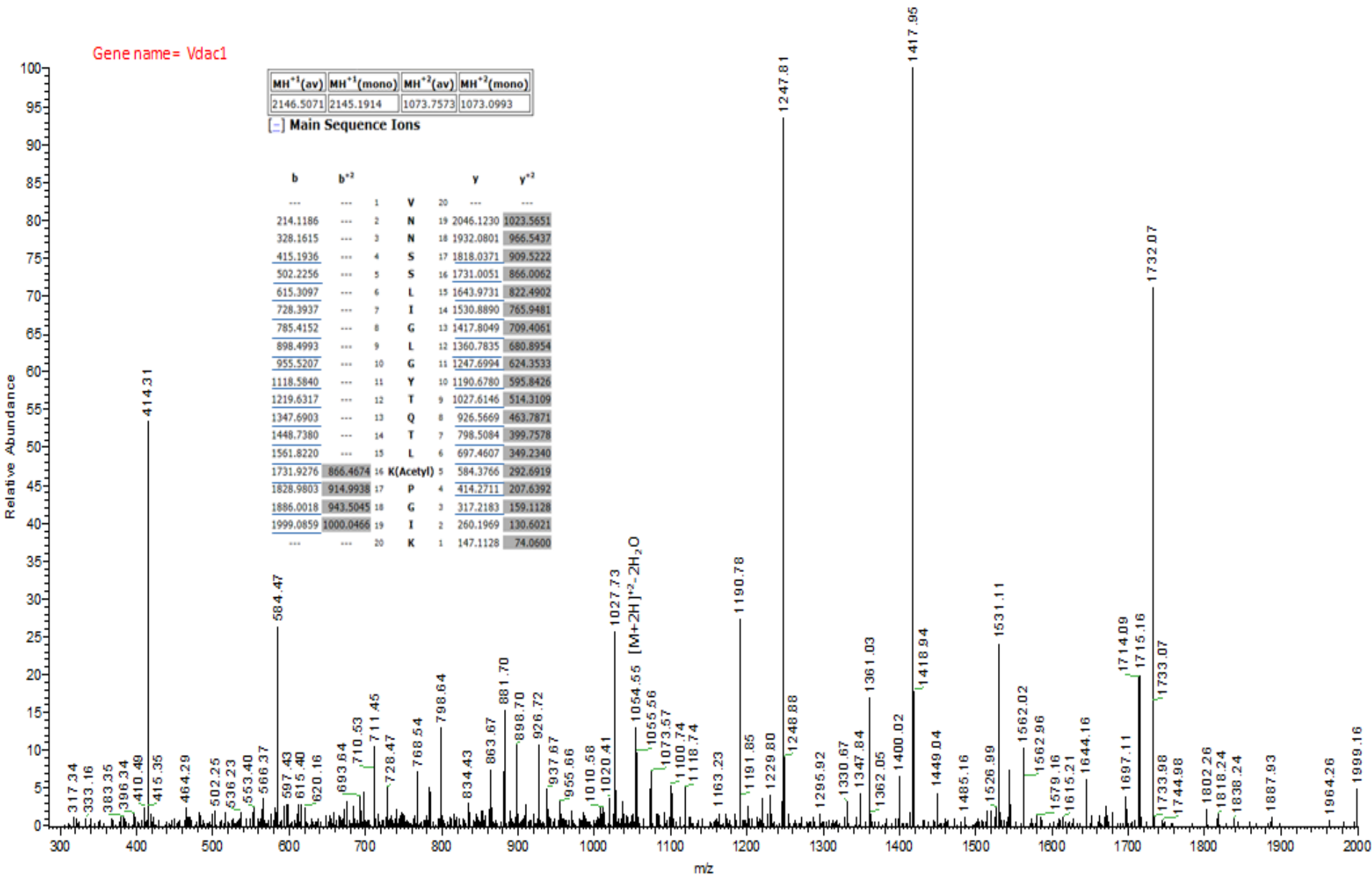


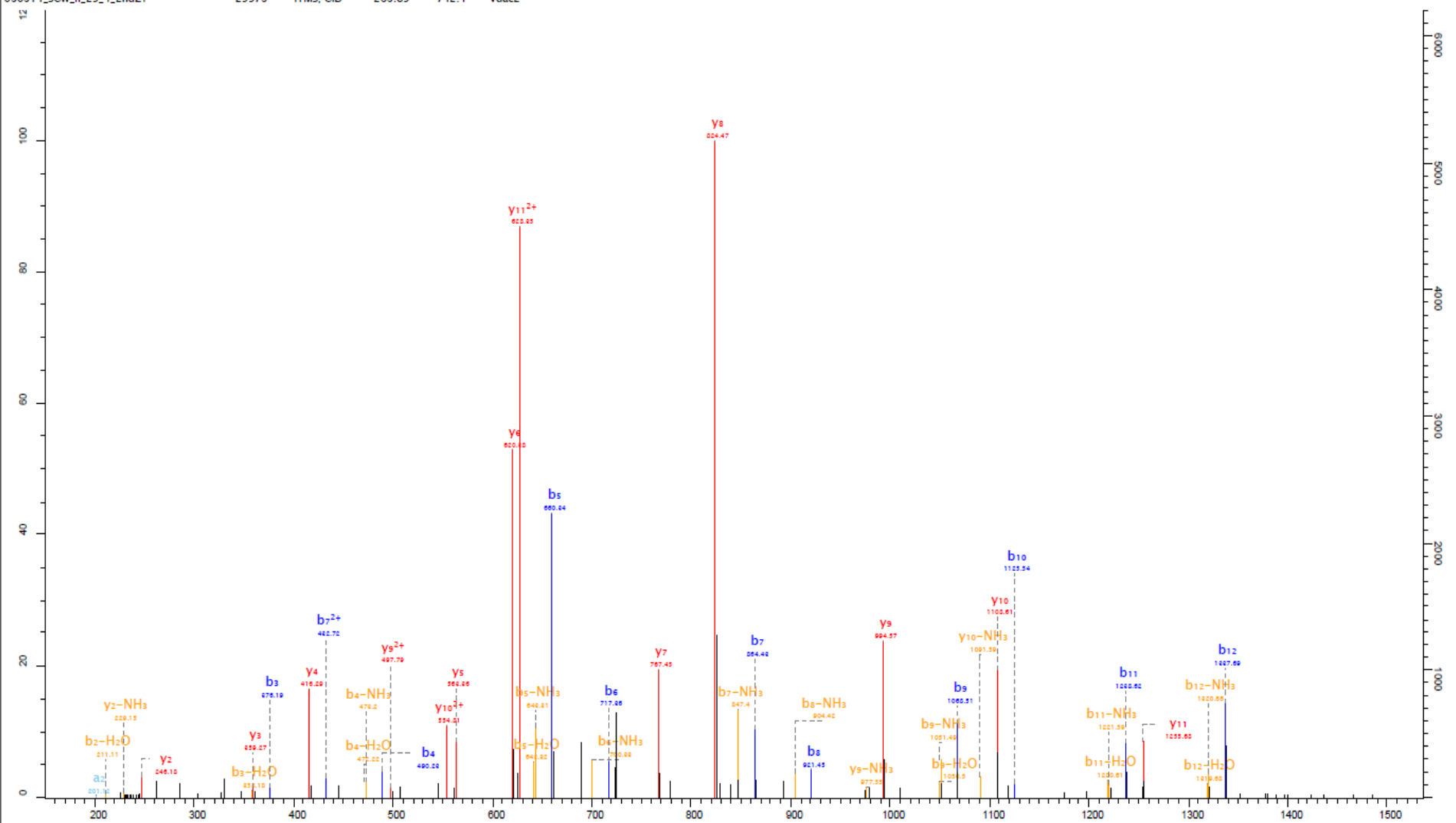
Gene name = Vdac1

MH ⁺ (av)	MH ⁺ (mono)	MH ⁺ (av)	MH ⁺ (mono)
2146.5071	2145.1914	1073.7573	1073.0993

(-) Main Sequence Ions

b	b ⁺	y	y ⁺
...	...	1	V
214.1186	...	2	N
328.1615	...	3	N
415.1936	...	4	S
502.2256	...	5	S
615.3097	...	6	L
728.3937	...	7	I
785.4152	...	8	G
898.4993	...	9	L
955.5207	...	10	G
1118.5840	...	11	Y
1219.6317	...	12	T
1347.6903	...	13	Q
1448.7380	...	14	T
1561.8220	...	15	L
1731.9276	866.4674	16	K(Acetyl)
1828.9803	914.9938	17	P
1886.0018	943.5045	18	G
1999.0859	1000.0466	19	I
...	...	20	K

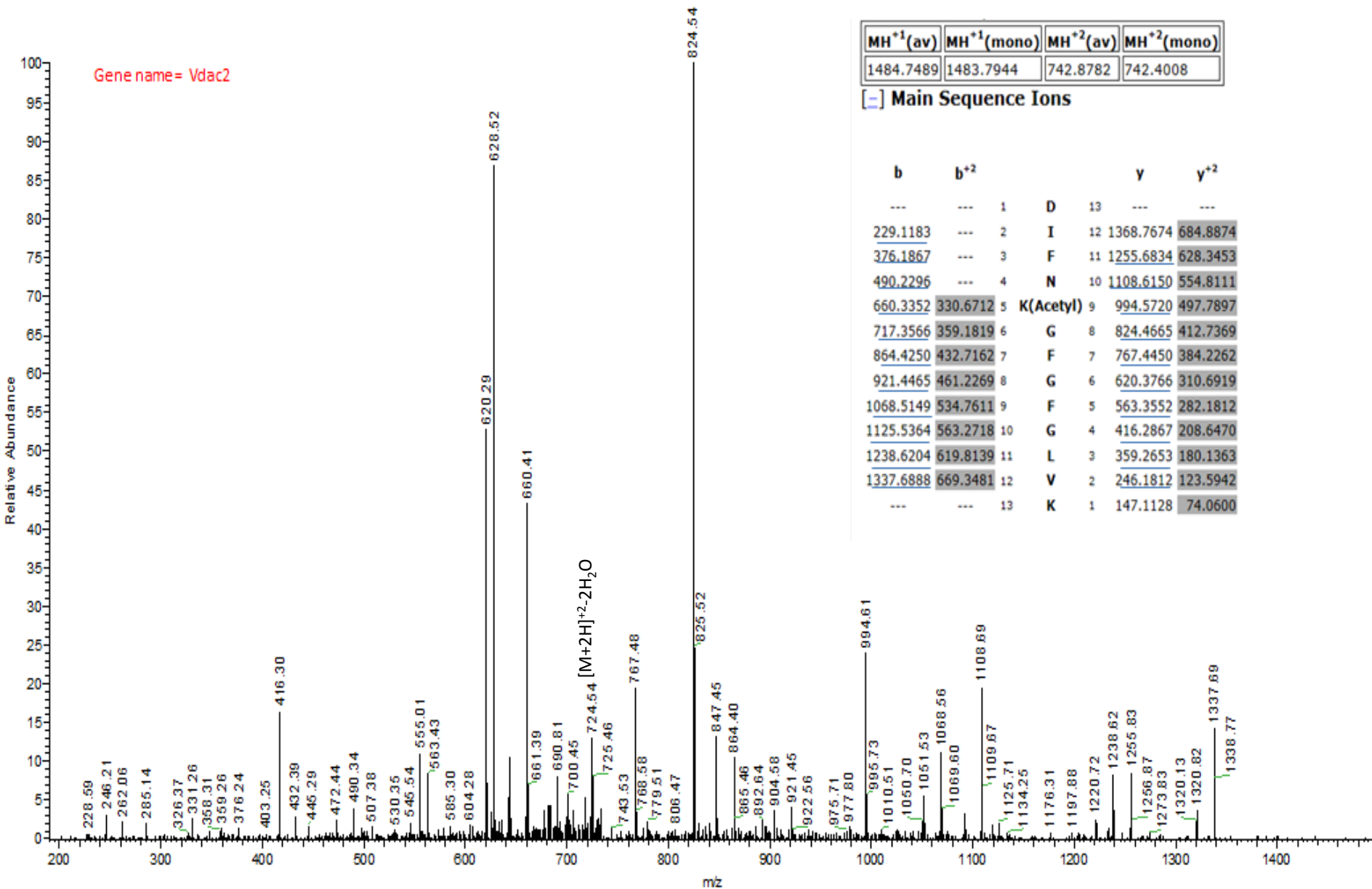




- D I F N K G F G F G L V K -

a2 b3 b4 b5 b6 b7 b8 b9 b10 b11 b12

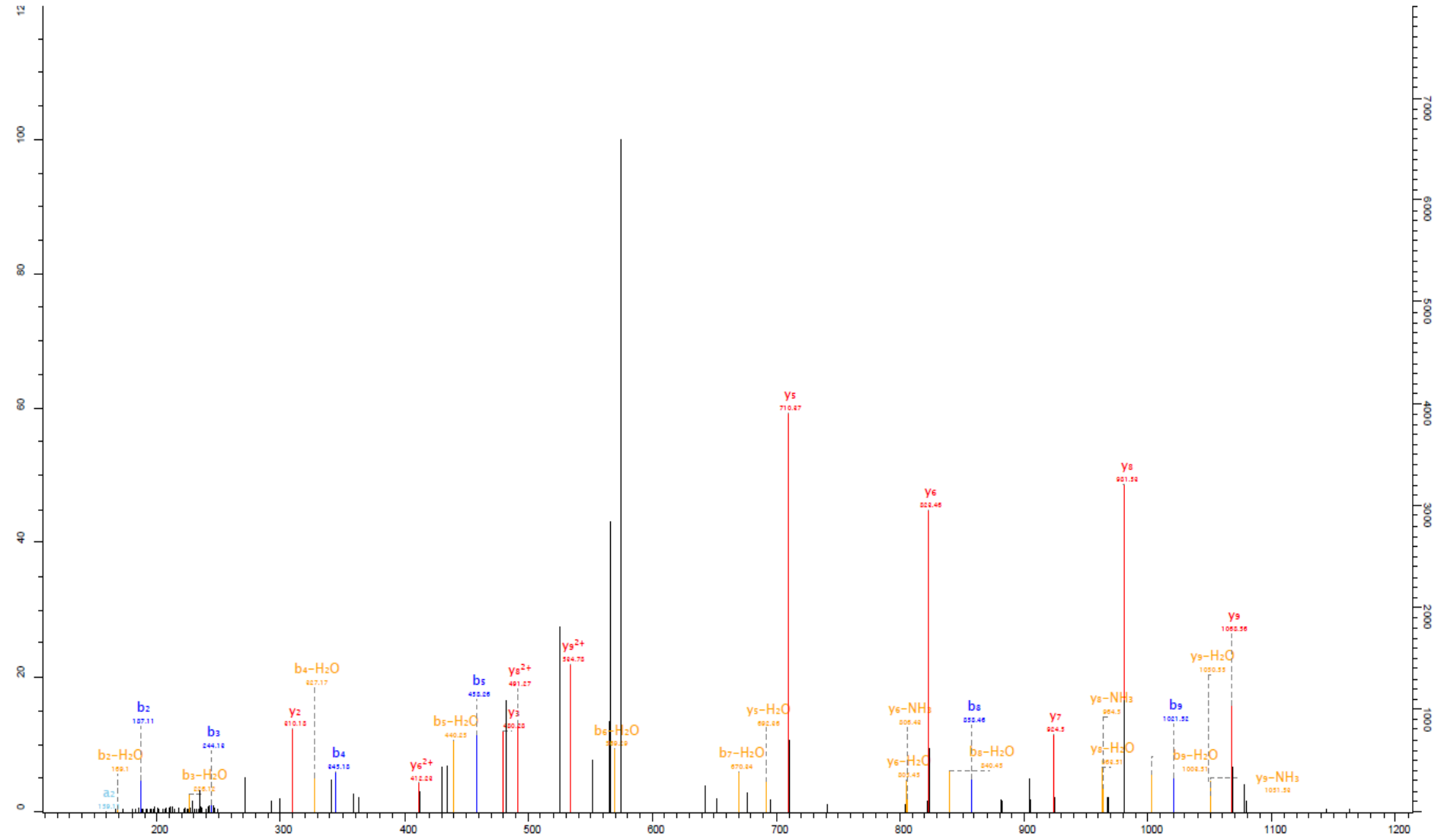
Gene name = Vdac2



MH ⁺ (av)	MH ⁺ (mono)	MH ²⁺ (av)	MH ²⁺ (mono)
1484.7489	1483.7944	742.8782	742.4008

[-] Main Sequence Ions

b	b ⁺		y	y ⁺	
---	---	1	D	13	---
229.1183	---	2	I	12	1368.7674
376.1867	---	3	F	11	1255.6834
490.2296	---	4	N	10	1108.6150
660.3352	330.6712	5	K(Acetyl)	9	994.5720
717.3566	359.1819	6	G	8	824.4665
864.4250	432.7162	7	F	7	767.4450
921.4465	461.2269	8	G	6	620.3766
1068.5149	534.7611	9	F	5	563.3552
1125.5364	563.2718	10	G	4	416.2867
1238.6204	619.8139	11	L	3	359.2653
1337.6888	669.3481	12	V	2	246.1812
---	---	13	K	1	147.1128



- V y₉ y₈ y₇ y₆ y₅ T y₃ y₂ K Y K -

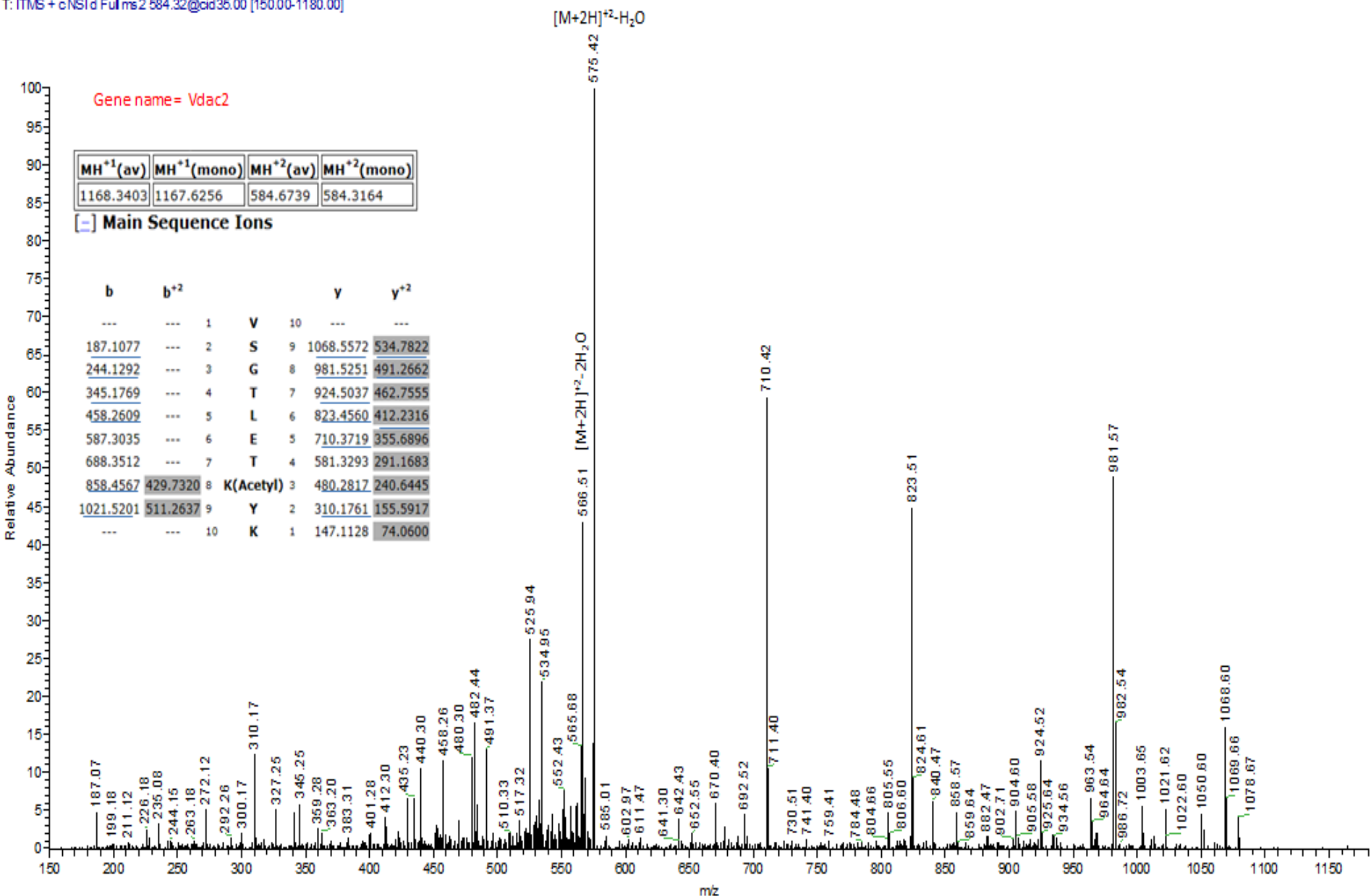
b₂ b₃ b₄ b₅ b₆ b₉

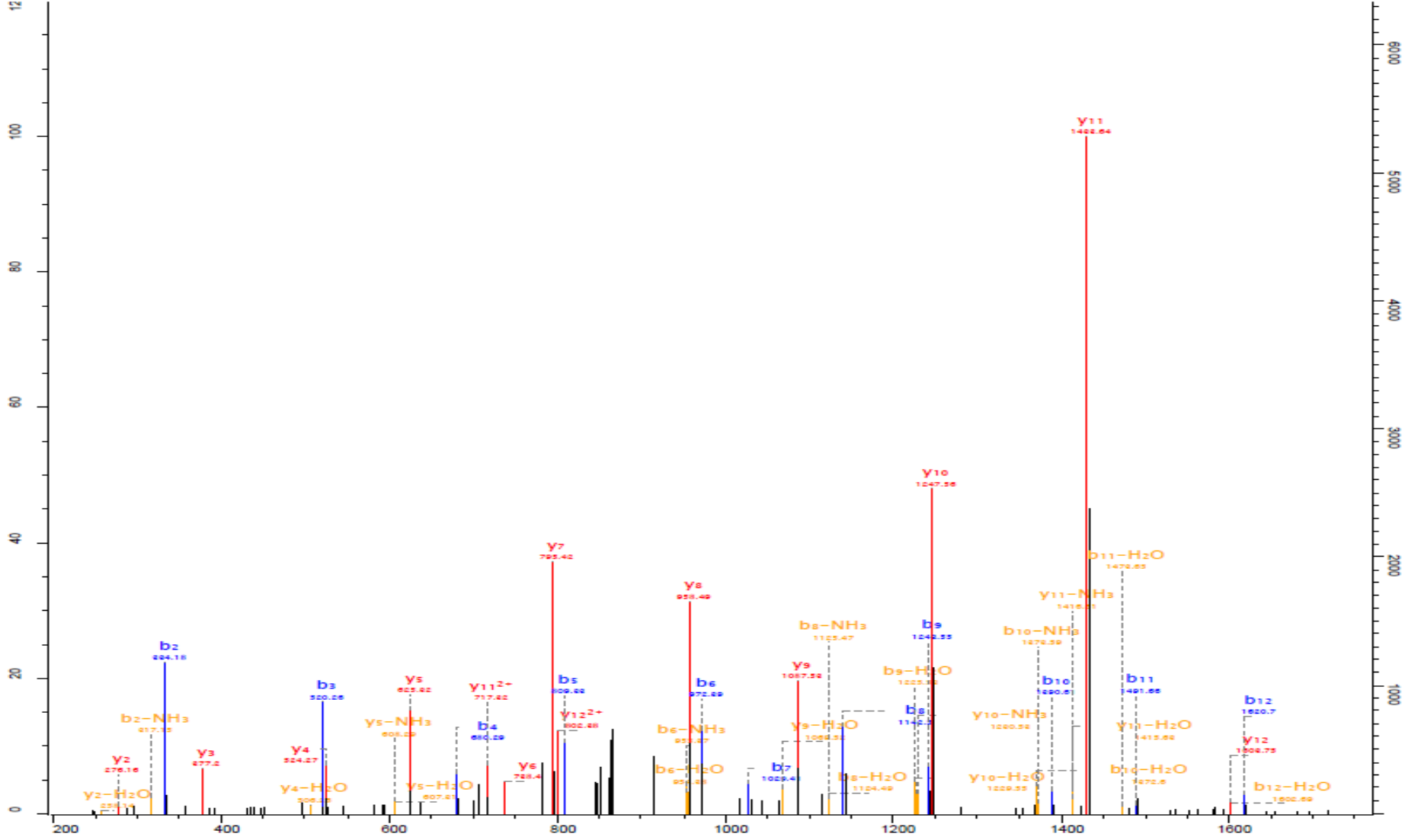
Gene name= Vdac2

MH ⁺ (av)	MH ⁺ (mono)	MH ⁺ (av)	MH ⁺ (mono)
1168.3403	1167.6256	584.6739	584.3164

(-) Main Sequence Ions

b	b ⁺		y	y ⁺	
---	---	1	V	10	---
187.1077	---	2	S	9	1068.5572
244.1292	---	3	G	8	981.5251
345.1769	---	4	T	7	924.5037
458.2609	---	5	L	6	823.4560
587.3035	---	6	E	5	710.3719
688.3512	---	7	T	4	581.3293
858.4567	429.7320	8	K(Acetyl)	3	480.2817
1021.5201	511.2637	9	Y	2	310.1761
---	---	10	K	1	147.1128





Y

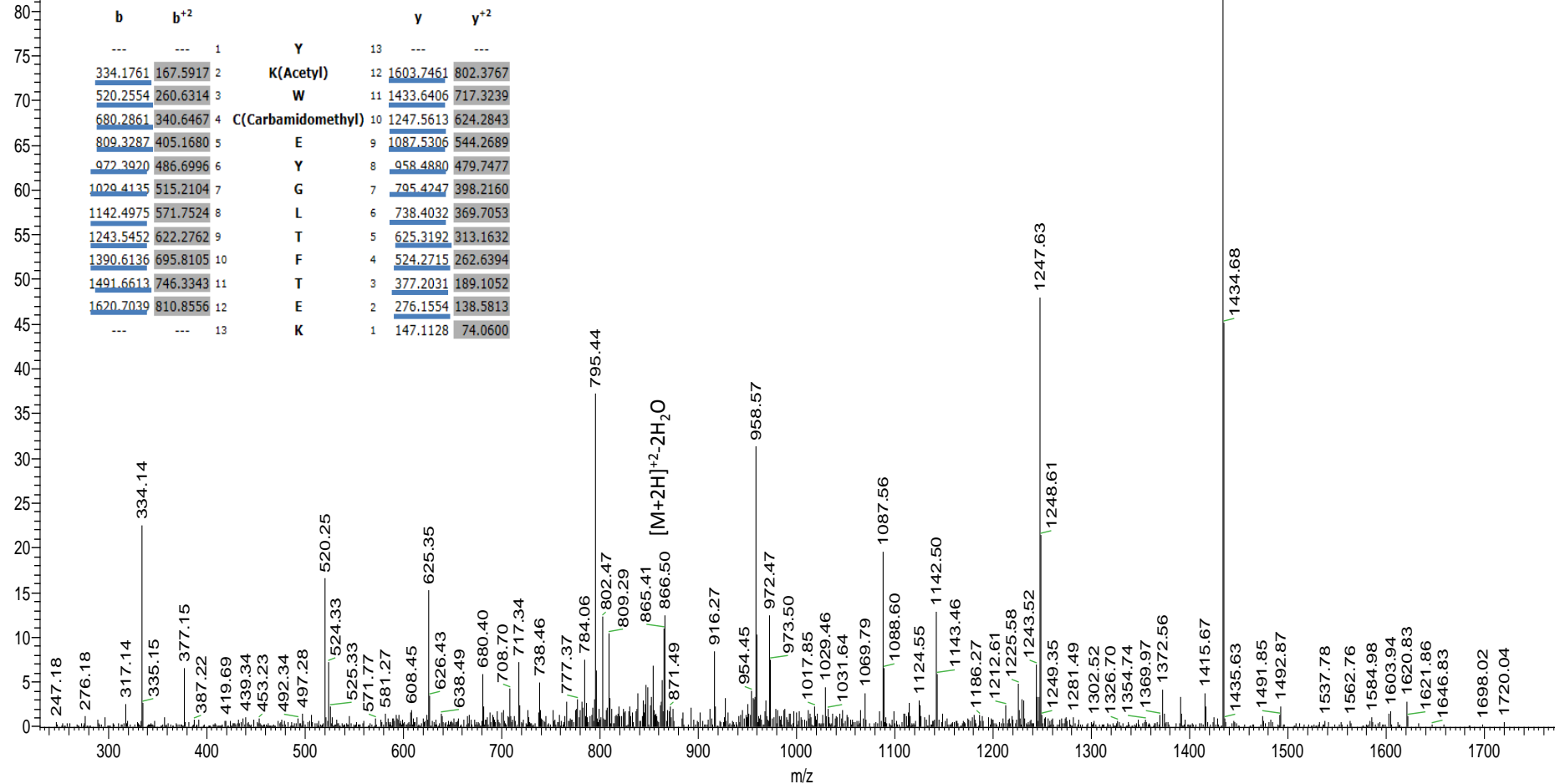
Y12	Y11	Y10	Y9	Y8	Y7	Y6	Y5	Y4	Y3	Y2
ac										
K	W	C	E	Y	G	L	T	F	T	E
b2	b5	b4	b5	b6	b7	b8	b9	b10	b11	b12

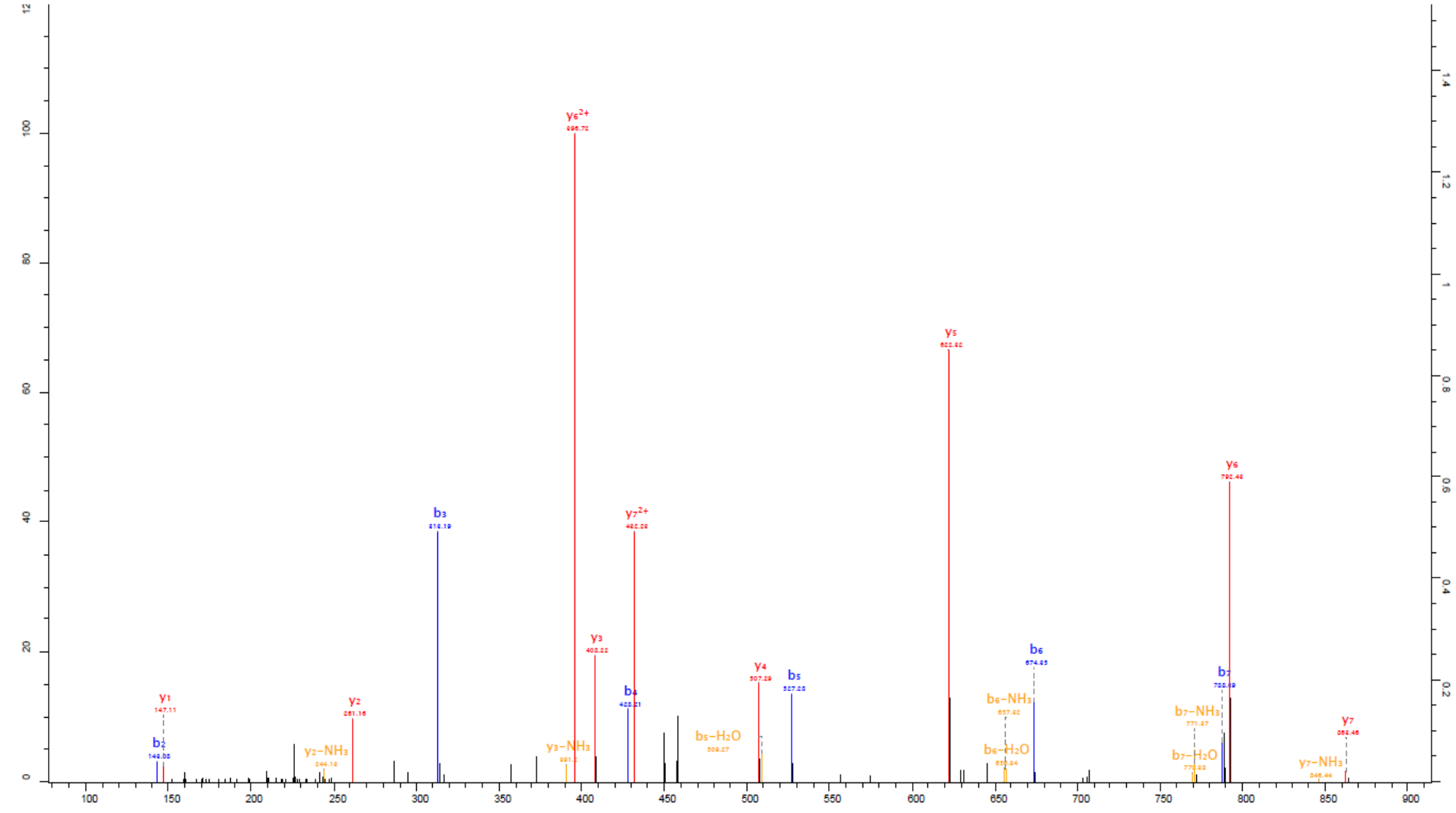
 K -

Gene name = Vdac2

MH ⁺¹ (av)	MH ⁺¹ (mono)	MH ⁺² (av)	MH ⁺² (mono)
1768.0102	1766.8094	884.5088	883.9084

[-] Main Sequence Ions



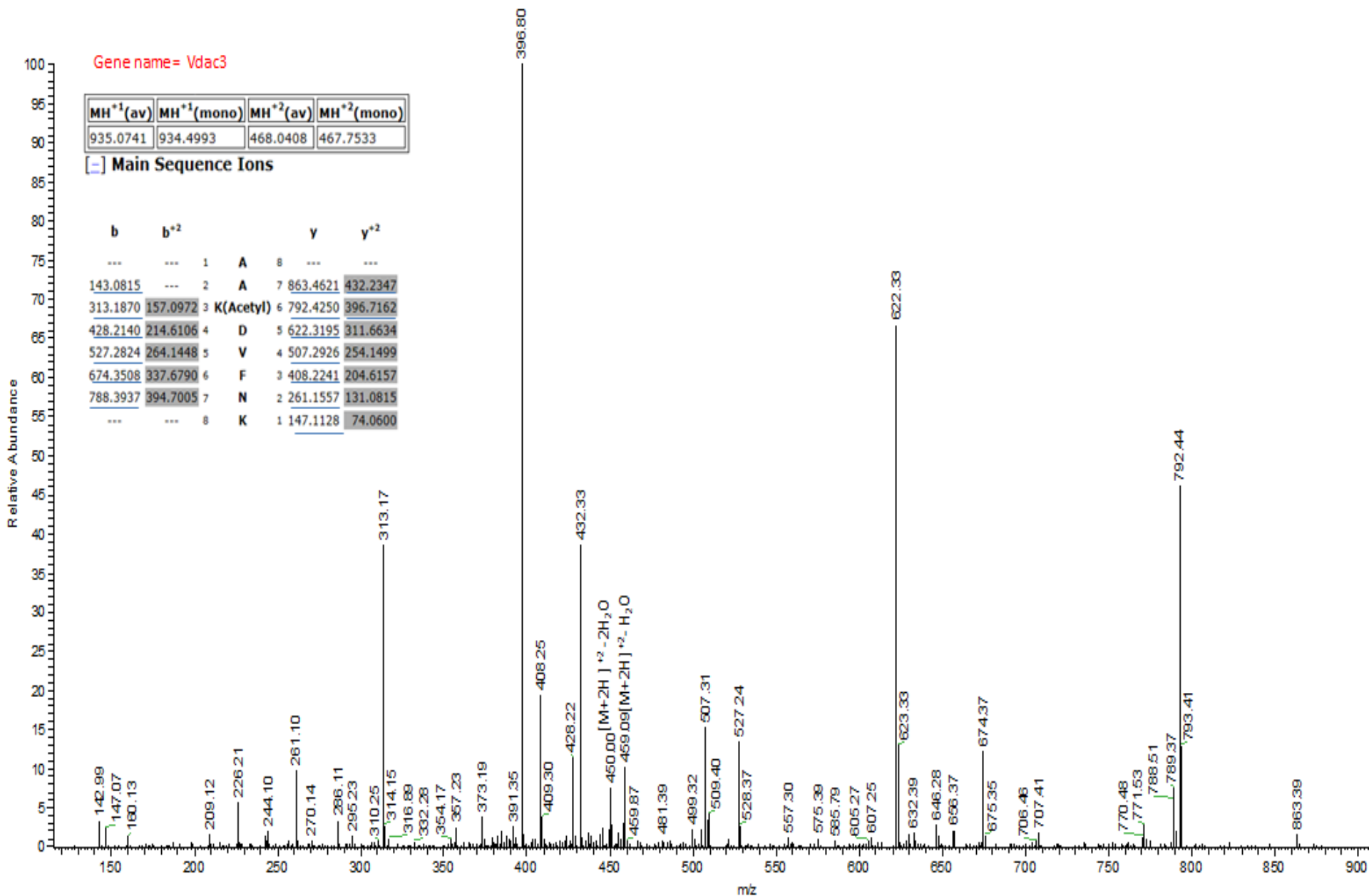


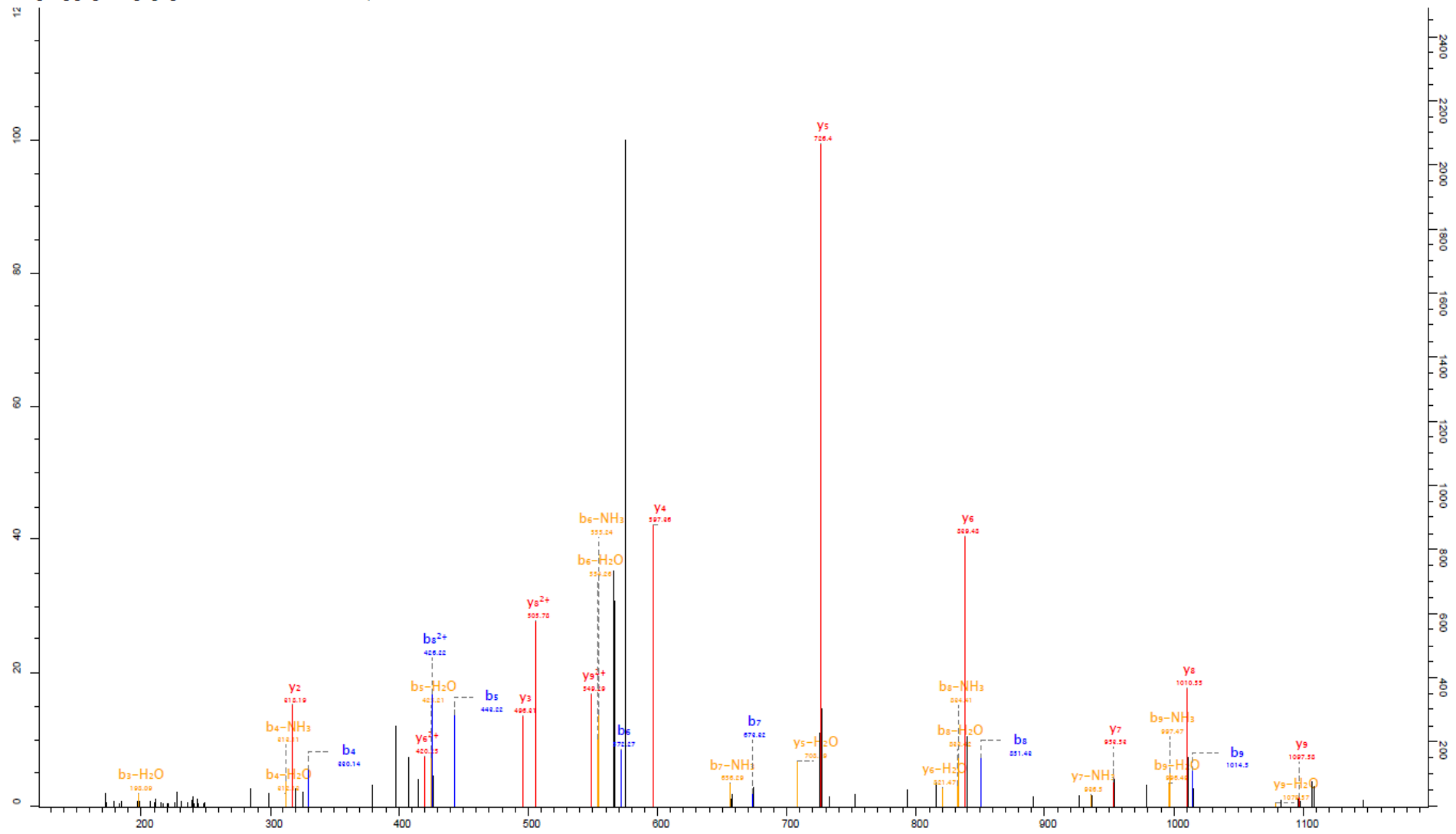
Gene name= Vdac3

MH ⁺ (av)	MH ⁺ (mono)	MH ⁺ (av)	MH ⁺ (mono)
935.0741	934.4993	468.0408	467.7533

Main Sequence Ions

b	b ⁺		y	y ⁺
...	...	1	A	8
143.0815	...	2	A	7
313.1870	157.0972	3	K(Acetyl)	6
428.2140	214.6106	4	D	5
527.2824	264.1448	5	V	4
674.3508	337.6790	6	F	3
788.3937	394.7005	7	N	2
...	...	8	K	1

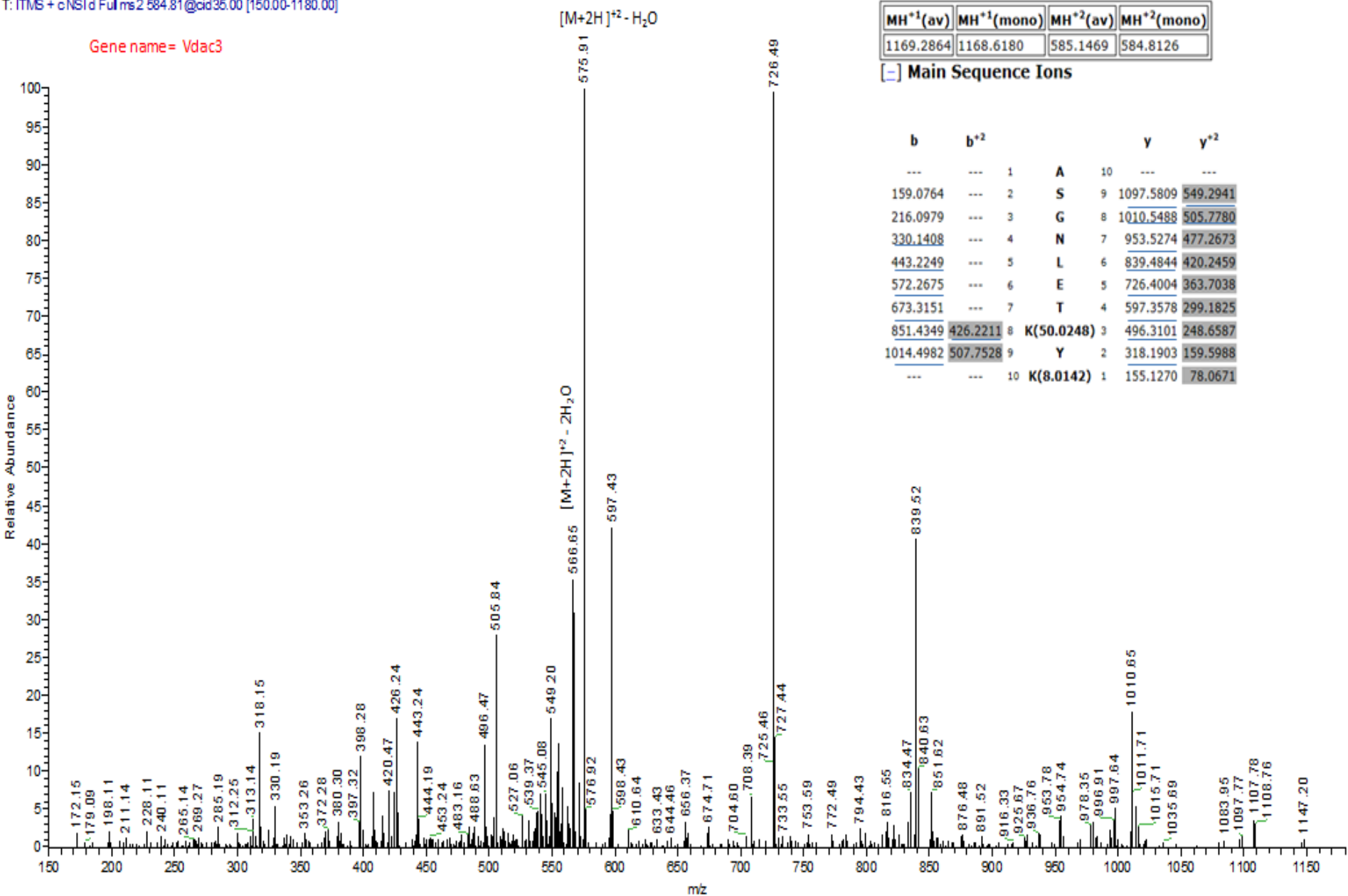




- A S G N L E T K Y K -

y9
y8
y7
y6
y5
y4
y3
y2
b4
b5
b6
b7
b8
b9

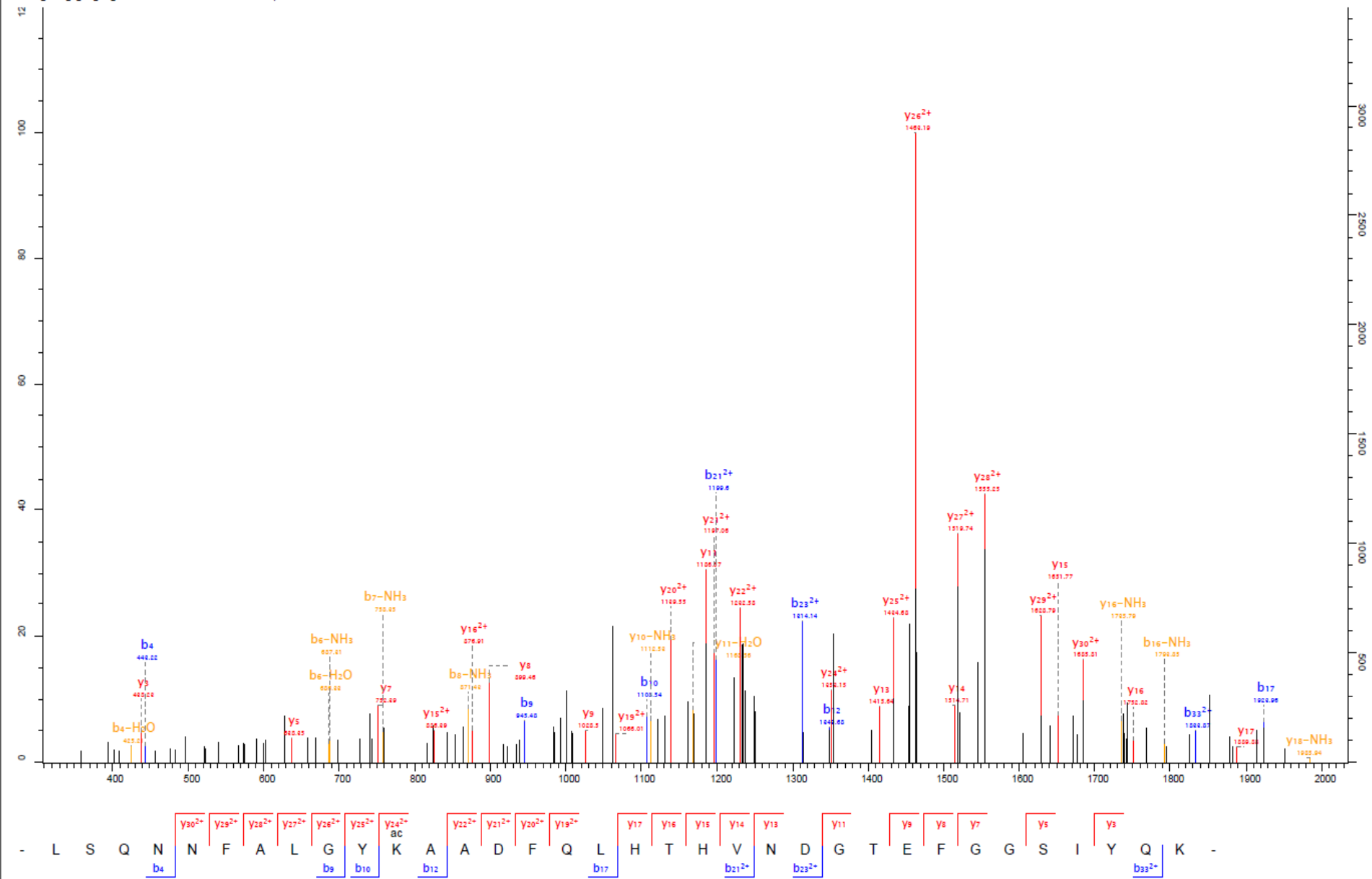
Gene name = Vdac3



MH ⁺ (av)	MH ⁺ (mono)	MH ²⁺ (av)	MH ²⁺ (mono)
1169.2864	1168.6180	585.1469	584.8126

[-] Main Sequence Ions

b	b ²⁺		y	y ²⁺	
---	---	1	A	10	---
159.0764	---	2	S	9	1097.5809
216.0979	---	3	G	8	1010.5488
330.1408	---	4	N	7	953.5274
443.2249	---	5	L	6	839.4844
572.2675	---	6	E	5	726.4004
673.3151	---	7	T	4	597.3578
851.4349	426.2211	8	K(50.0248)	3	496.3101
1014.4982	507.7528	9	Y	2	318.1903
---	---	10	K(8.0142)	1	155.1270

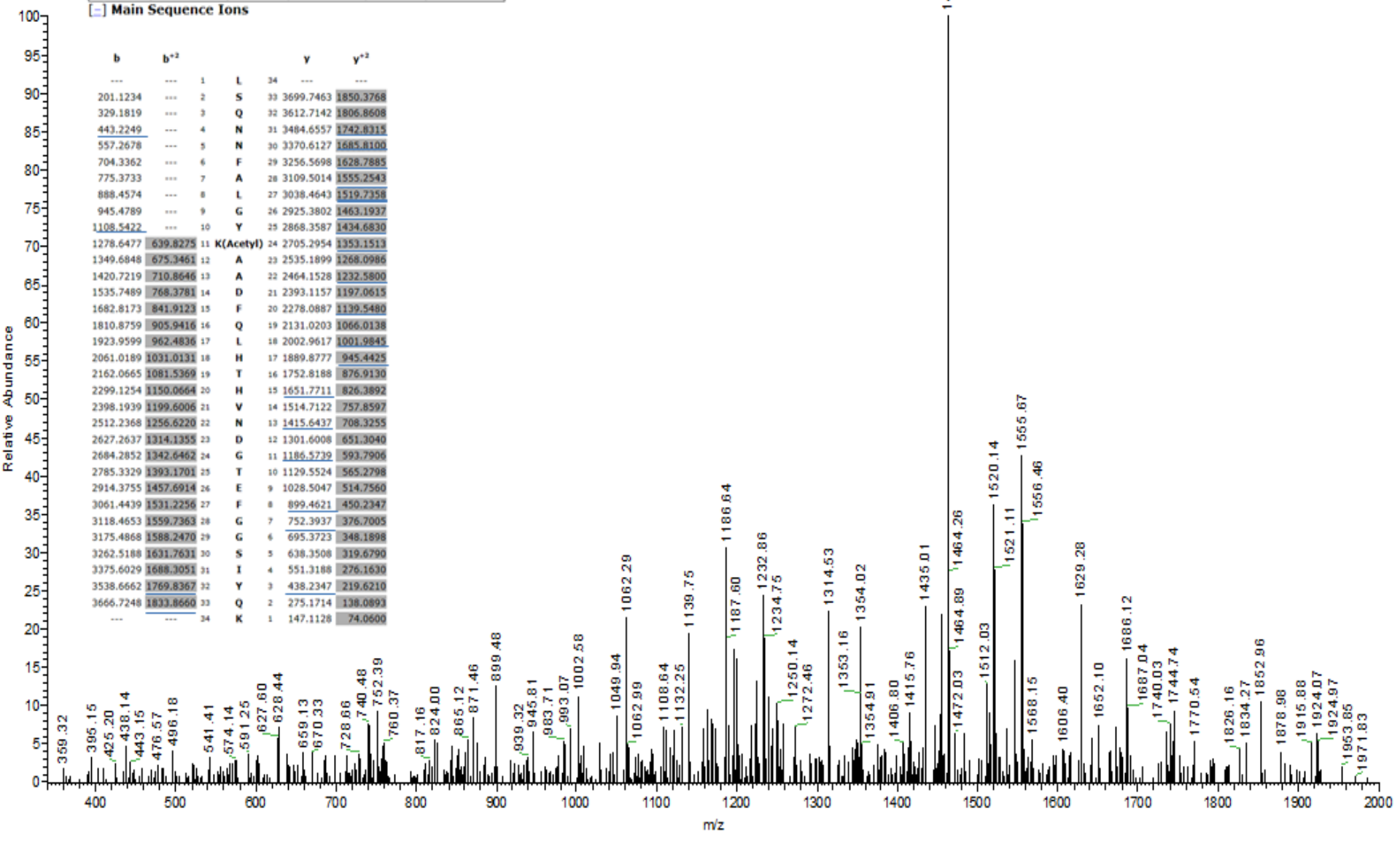


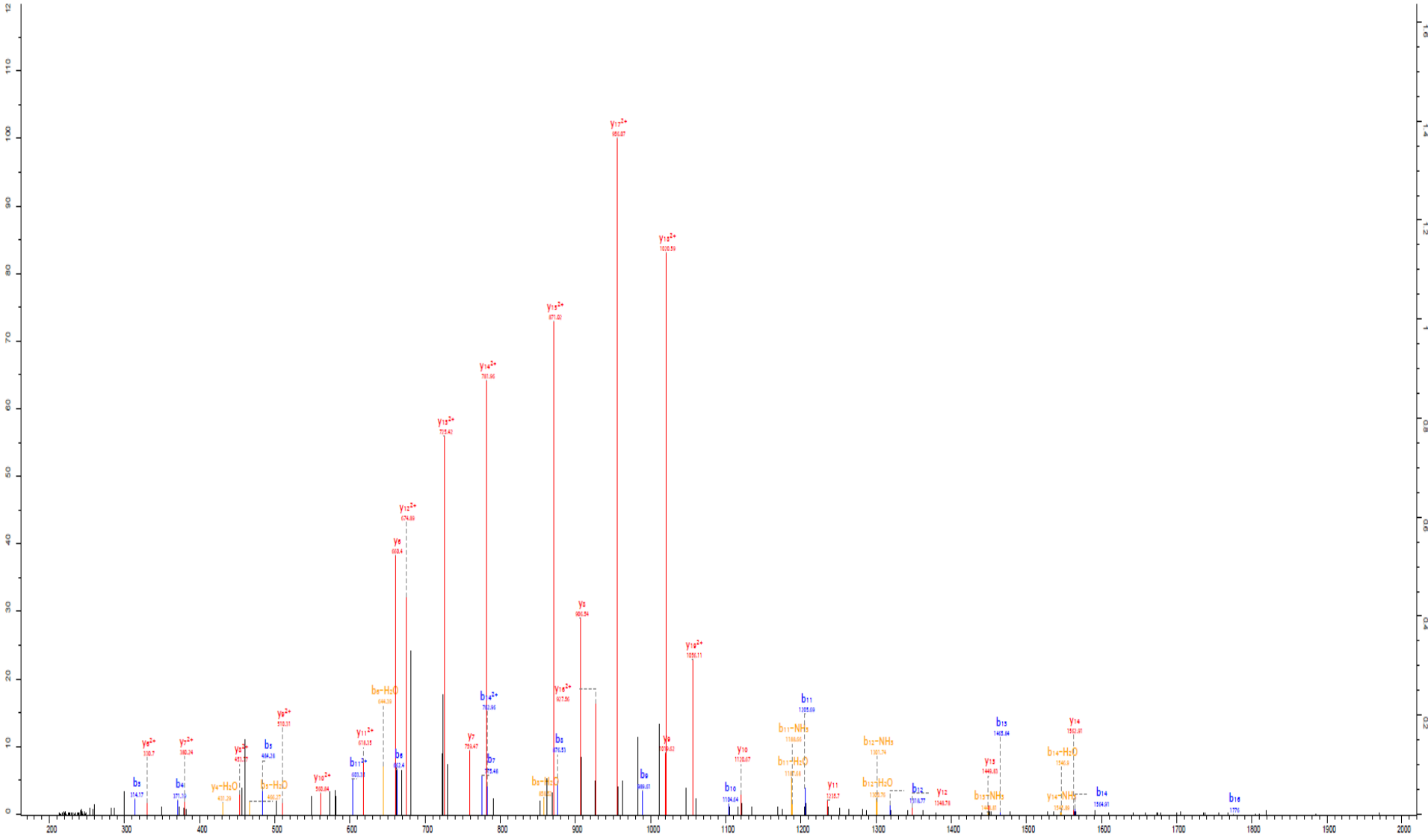
Gene name = Vdac3

MH ⁺ (av)	MH ⁺ (mono)	MH ²⁺ (av)	MH ²⁺ (mono)	MH ³⁺ (av)	MH ³⁺ (mono)
3815.1762	3812.8303	1908.0918	1906.9188	1272.3970	1271.6150

Main Sequence Ions

b	b ⁺	y	y ⁺
---	---	1	L
---	---	2	S
---	---	3	Q
---	---	4	N
---	---	5	N
---	---	6	F
---	---	7	A
---	---	8	L
---	---	9	G
---	---	10	Y
---	---	11	K(Acetyl)
---	---	12	A
---	---	13	A
---	---	14	D
---	---	15	F
---	---	16	Q
---	---	17	L
---	---	18	H
---	---	19	T
---	---	20	H
---	---	21	V
---	---	22	N
---	---	23	D
---	---	24	G
---	---	25	T
---	---	26	E
---	---	27	F
---	---	28	G
---	---	29	G
---	---	30	S
---	---	31	I
---	---	32	Y
---	---	33	Q
---	---	34	K



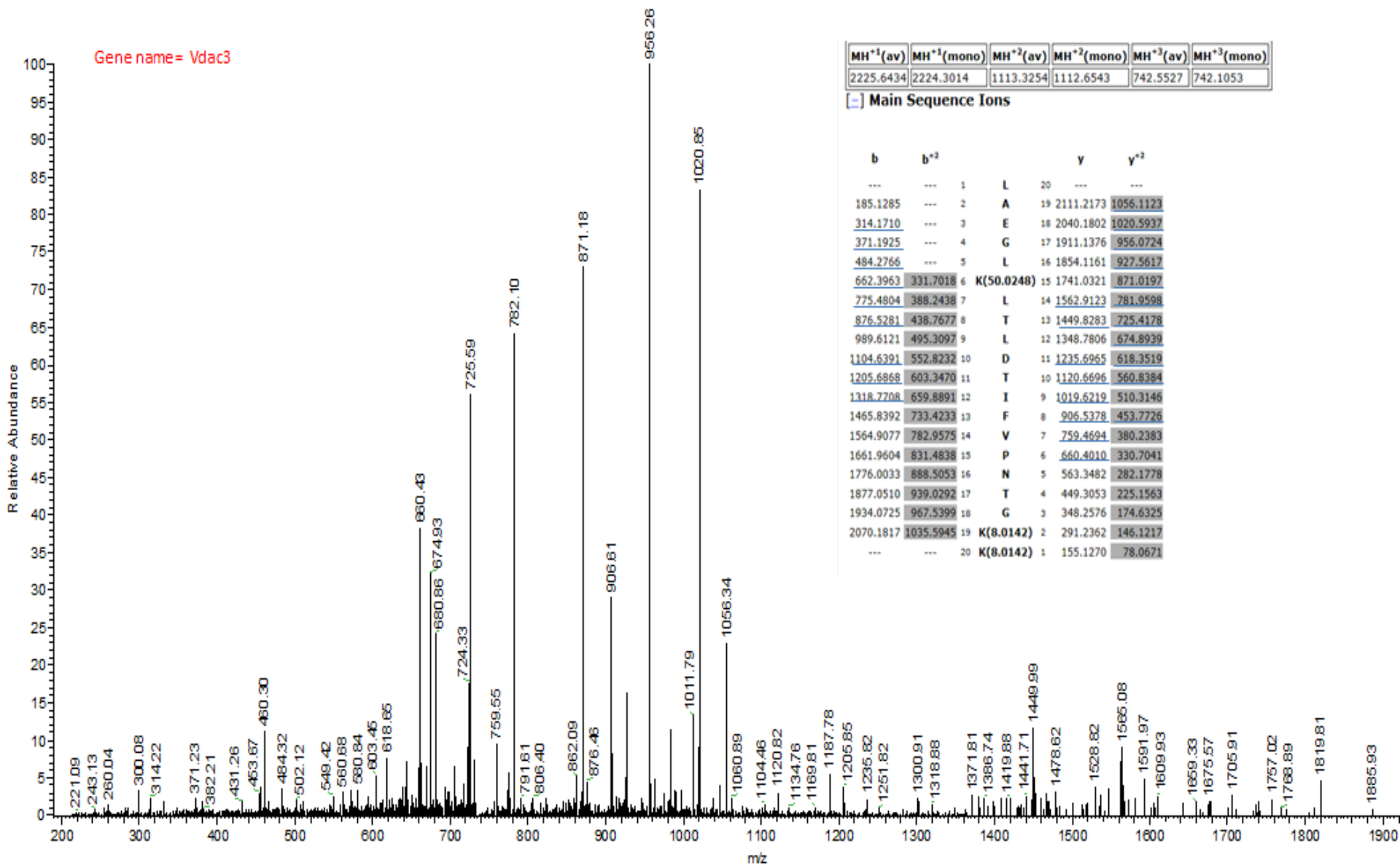


- L A E G L K L T L D T I F V P N T G K K -

bs bs bs bs bs bs bs bs bs bs bs bs bs bs bs bs

x10

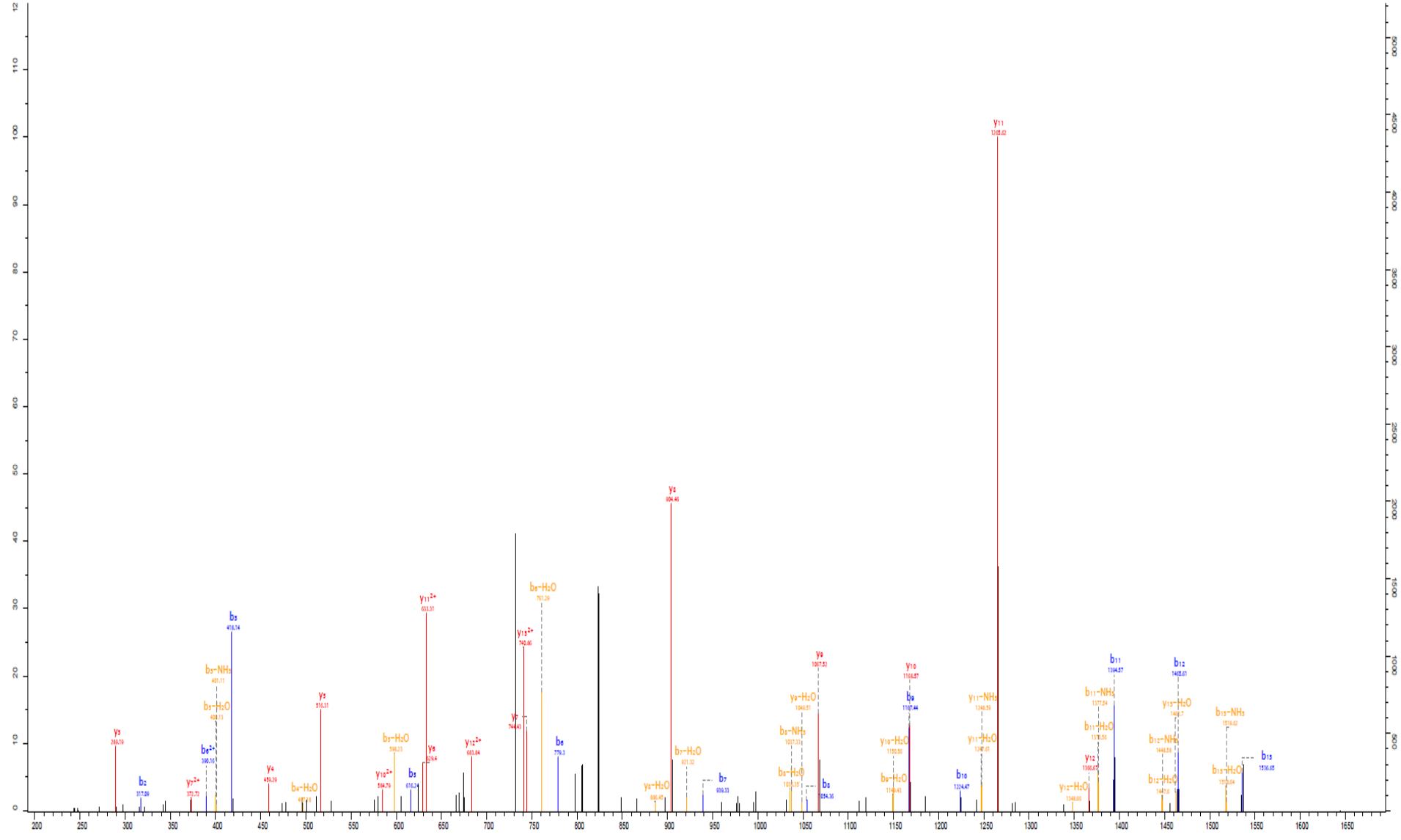
Gene name = Vdac3



MH ⁺ (av)	MH ⁺ (mono)	MH ²⁺ (av)	MH ²⁺ (mono)	MH ³⁺ (av)	MH ³⁺ (mono)
2225.6434	2224.3014	1113.3254	1112.6543	742.5527	742.1053

[-] Main Sequence Ions

b	b ⁺	y	y ⁺
---	---	1	L
---	---	20	---
185.1285	---	2	A
314.1710	---	3	E
371.1925	---	4	G
484.2766	---	5	L
662.3963	331.7018	6	K(50.0248)
775.4804	388.2438	7	L
876.5281	438.7677	8	T
989.6121	495.3097	9	L
1104.6391	552.8232	10	D
1205.6868	603.3470	11	T
1318.7208	659.8891	12	I
1465.8392	733.4233	13	F
1564.9077	782.9575	14	V
1661.9604	831.4838	15	P
1776.0033	888.5053	16	N
1877.0510	939.0292	17	T
1934.0725	967.5399	18	G
2070.1817	1035.5945	19	K(8.0142)
---	---	20	K(8.0142)



ac
 - C

Y12+	Y12	Y11	Y10	Y9	Y8	Y7	Y6	Y5	Y5 bc	Y5	
b2	b2	b2	b2	b2	b2	b2	b2	b10	b11	b12	b13

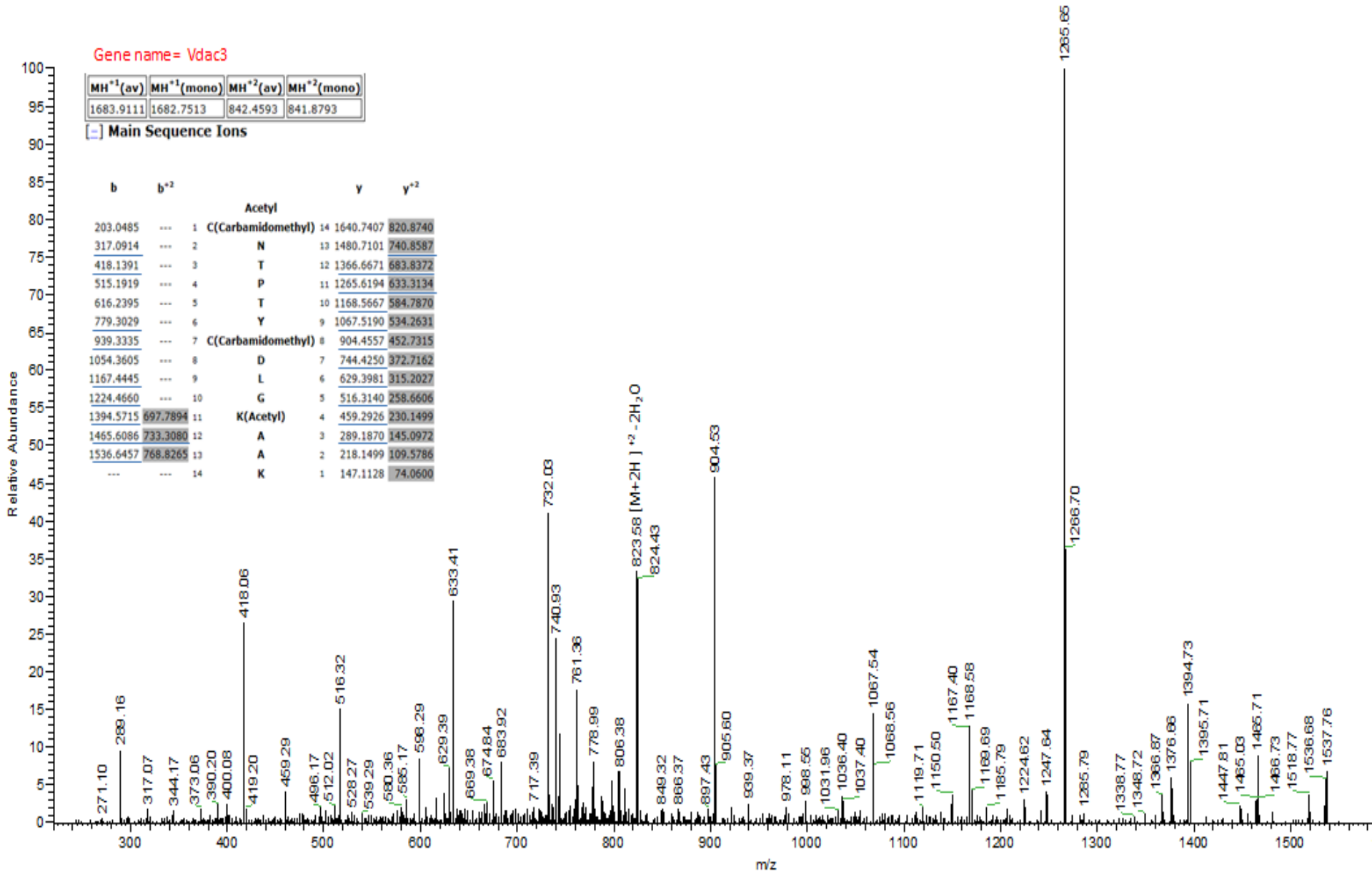
 N T P T Y C D L G K A A K -

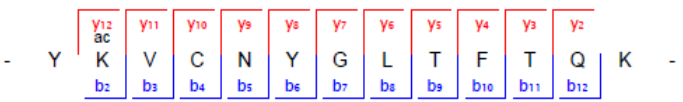
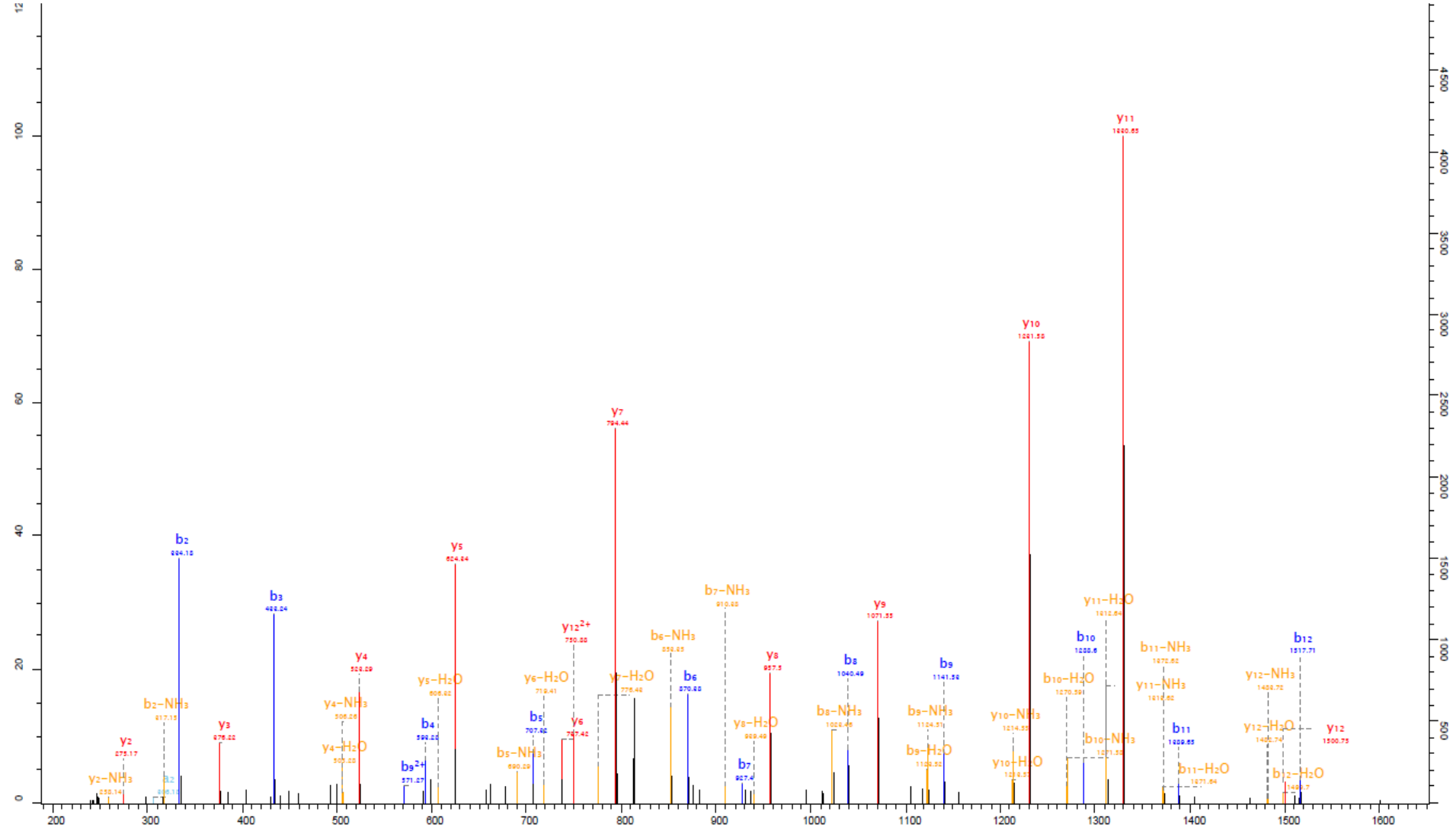
Gene name = Vdac3

MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)
1683.9111	1682.7513	842.4593	841.8793

[-] Main Sequence Ions

b	b ⁺ 2		y	y ⁺ 2		
Acetyl						
203.0485	---	1	C(Carbamidomethyl)	14	1640.7407	820.8740
317.0914	---	2	N	13	1480.7101	740.8587
418.1391	---	3	T	12	1366.6671	683.8372
515.1919	---	4	P	11	1265.6194	633.3134
616.2395	---	5	T	10	1168.5667	584.7870
779.3029	---	6	Y	9	1067.5190	534.2631
939.3335	---	7	C(Carbamidomethyl)	8	904.4557	452.7315
1054.3605	---	8	D	7	744.4250	372.7162
1167.4445	---	9	L	6	629.3981	315.2027
1224.4660	---	10	G	5	516.3140	258.6606
1394.5715	697.7894	11	K(Acetyl)	4	459.2926	230.1499
1465.6086	733.3080	12	A	3	289.1870	145.0972
1536.6457	768.8265	13	A	2	218.1499	109.5786
---	---	14	K	1	147.1128	74.0600



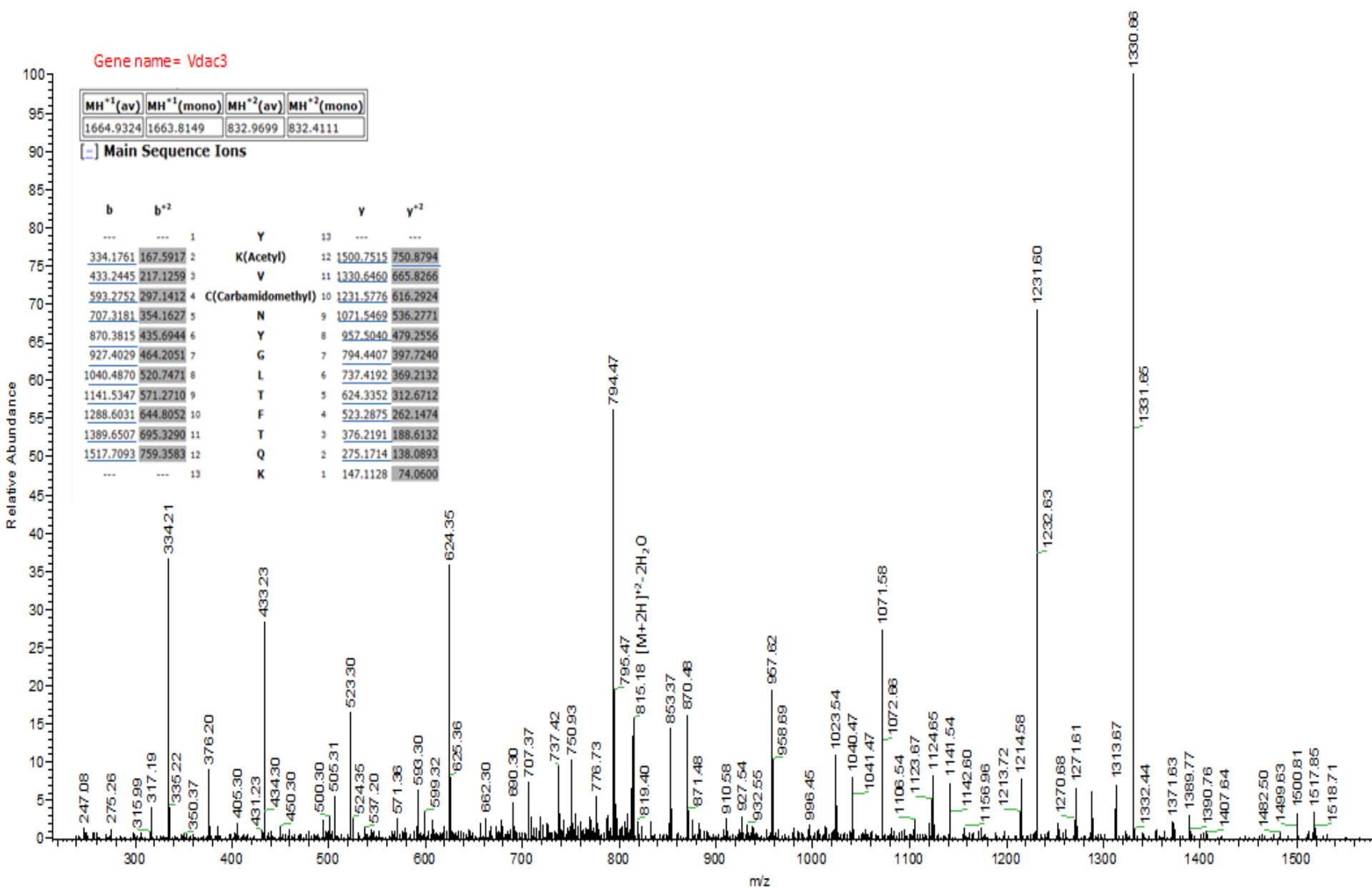


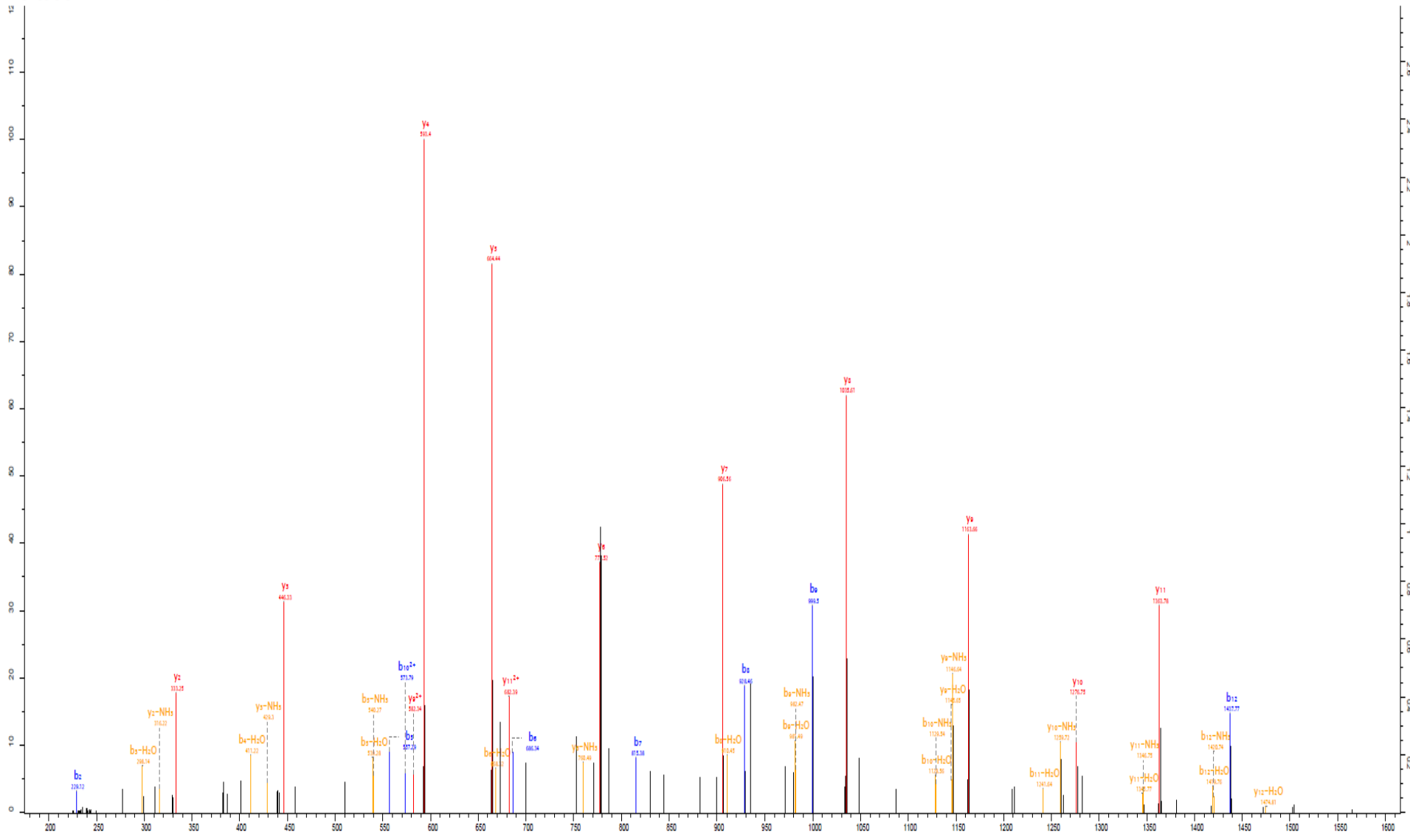
Gene name = Vdac3

MH ⁺ 1(av)	MH ⁺ 1(mono)	MH ⁺ 2(av)	MH ⁺ 2(mono)
1664.9324	1663.8149	832.9699	832.4111

[-] Main Sequence Ions

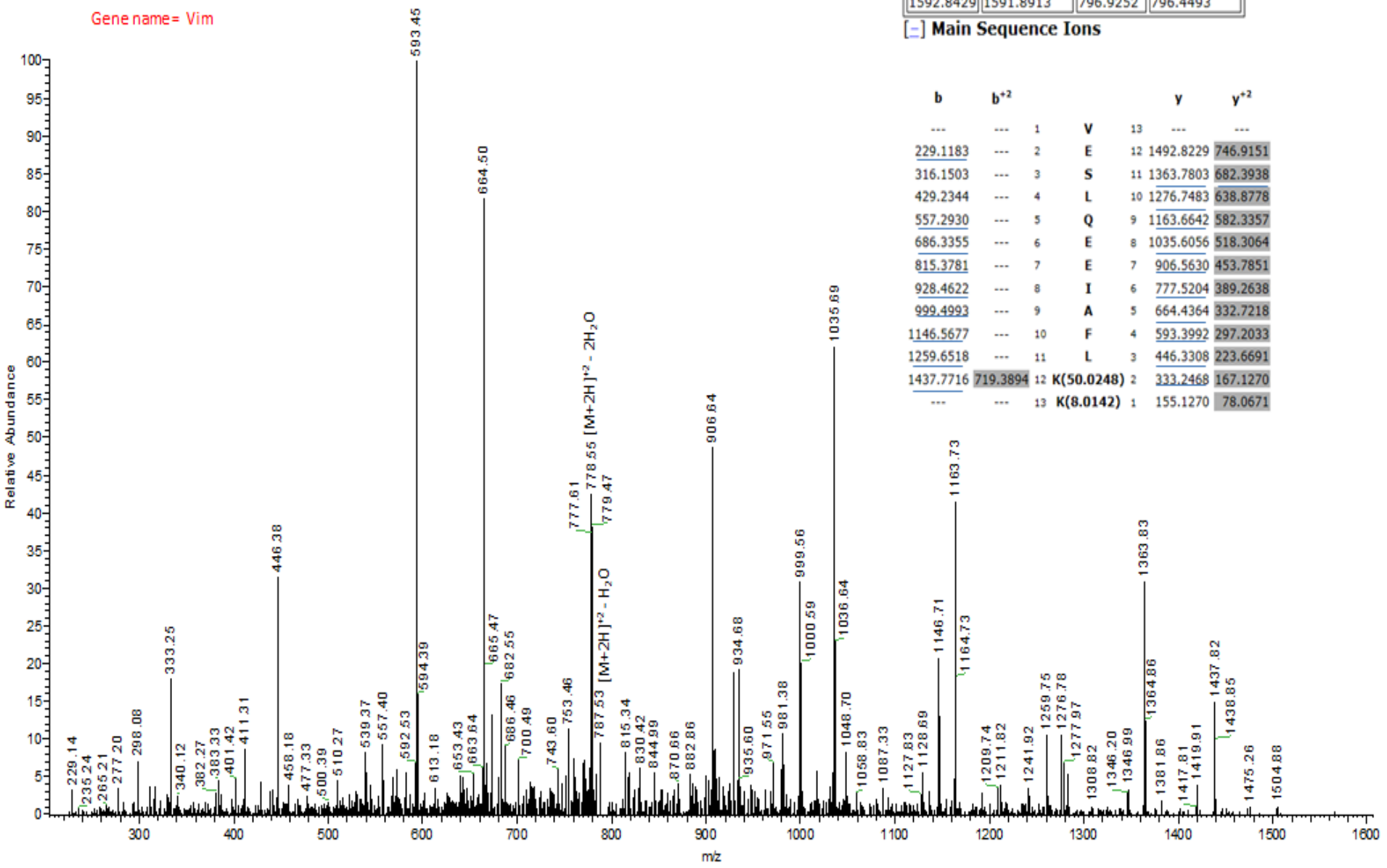
b	b ⁺	y	y ⁺
---	---	1	---
334.1761	167.5917	2	1500.7515
433.2445	217.1259	3	1330.6460
593.2752	297.1412	4	1231.5776
707.3181	354.1627	5	1071.5469
870.3815	435.6944	6	957.5040
927.4029	464.2051	7	794.4407
1040.4870	520.7471	8	737.4192
1141.5347	571.2710	9	624.3352
1288.6031	644.8052	10	523.2875
1389.6507	695.3290	11	376.2191
1517.7093	759.3583	12	275.1714
---	---	13	147.1128





- V E S L Q E E I A F L K K -
 b2 y1 y10 y6 y4 y7 y6 y5 y4 y3 y2 y2 ac
 b5 b6 b7 b6 b5 b4 b3 b2 b1

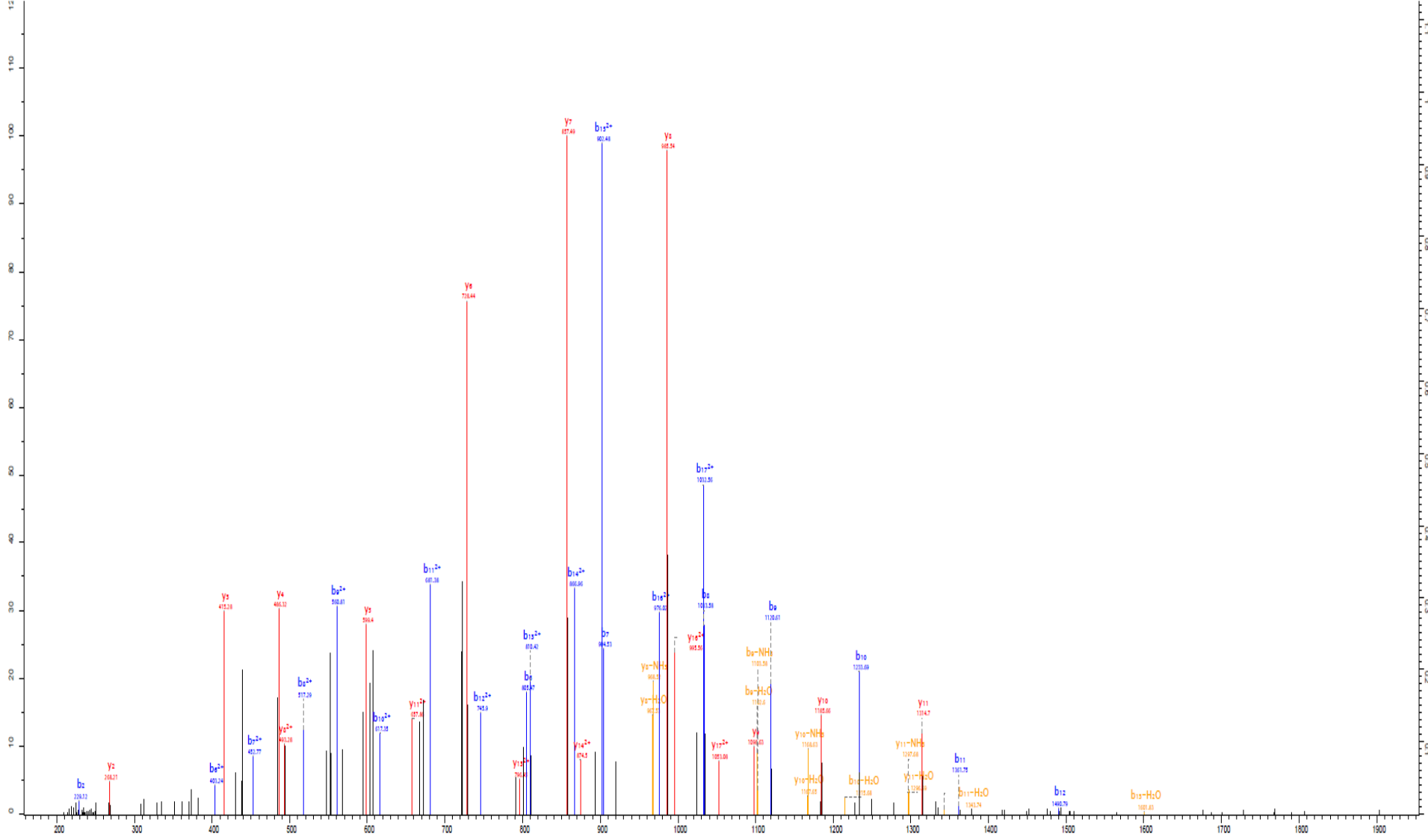
Gene name= Vim



MH ⁺ (av)	MH ⁺ (mono)	MH ²⁺ (av)	MH ²⁺ (mono)
1592.8429	1591.8913	796.9252	796.4493

[-] Main Sequence Ions

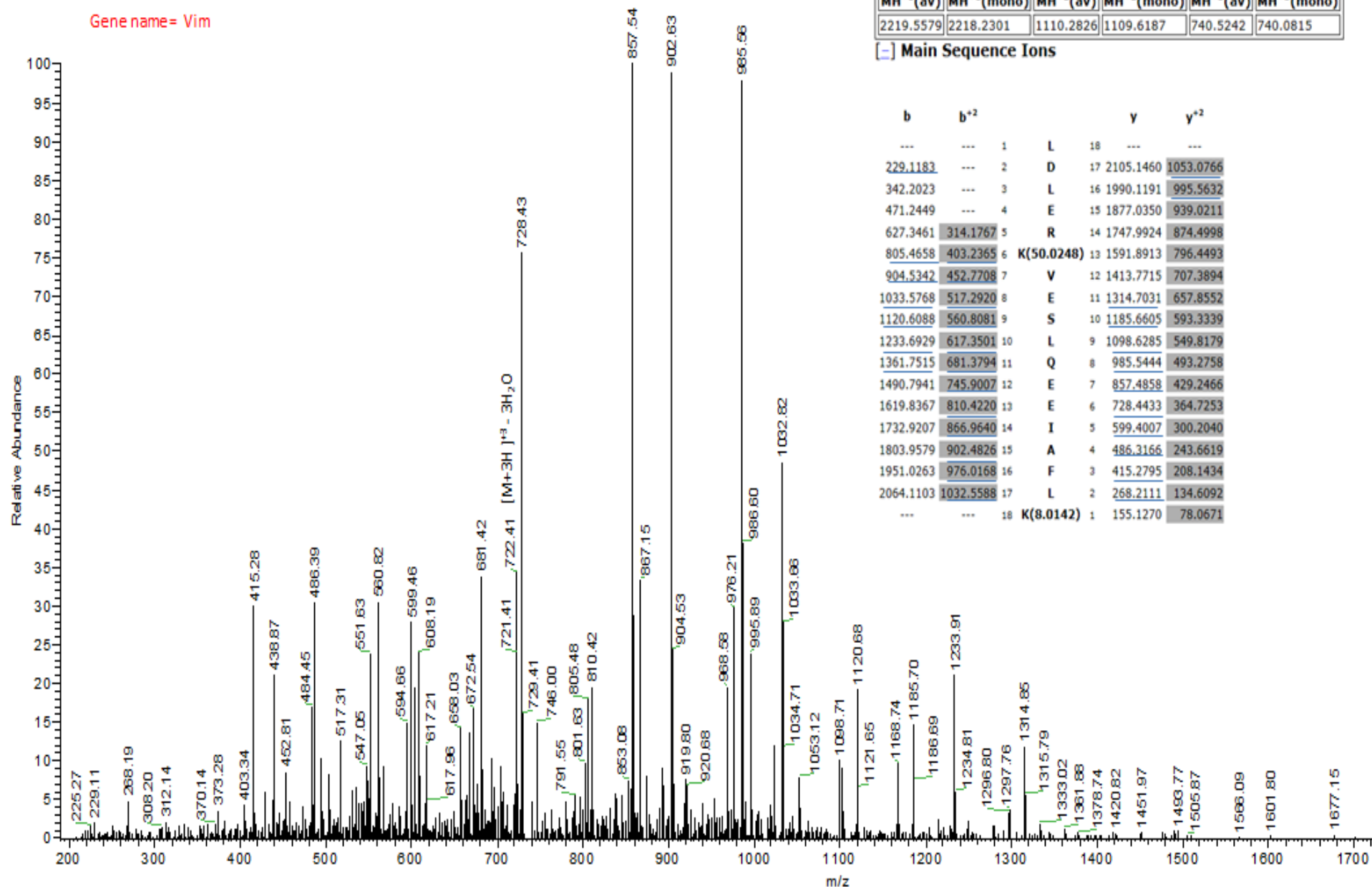
b	b ²⁺		y	y ²⁺		
---	---	1	V	13	---	---
229.1183	---	2	E	12	1492.8229	746.9151
316.1503	---	3	S	11	1363.7803	682.3938
429.2344	---	4	L	10	1276.7483	638.8778
557.2930	---	5	Q	9	1163.6642	582.3357
686.3355	---	6	E	8	1035.6056	518.3064
815.3781	---	7	E	7	906.5630	453.7851
928.4622	---	8	I	6	777.5204	389.2638
999.4993	---	9	A	5	664.4364	332.7218
1146.5677	---	10	F	4	593.3992	297.2033
1259.6518	---	11	L	3	446.3308	223.6691
1437.7716	719.3894	12	K(50.0248)	2	333.2468	167.1270
--	--	13	K(8.0142)	1	155.1270	78.0671



- L D L E R K V E S L Q E E I A F L K -

Fragmentation mapping:
 - L: b_2
 - D: y_{12}^+
 - L: y_{14}^+
 - E: y_{12}^+
 - R: ac
 - K: b_x
 - V: b_r
 - E: b_s
 - S: b_{10}
 - L: b_{11}
 - Q: b_{12}
 - E: b_{12}^+
 - E: b_{12}^+
 - I: b_{12}^+
 - A: b_{12}^+
 - F: b_{12}^+
 - L: b_{12}^+
 - K: b_{12}^+

Gene name= Vim



MH ⁺ (av)	MH ⁺ (mono)	MH ²⁺ (av)	MH ²⁺ (mono)	MH ³⁺ (av)	MH ³⁺ (mono)
2219.5579	2218.2301	1110.2826	1109.6187	740.5242	740.0815

[-] Main Sequence Ions

b	b ⁺		y	y ⁺
---	---	1	L	---
<u>229.1183</u>	---	2	D	17 2105.1460 <u>1053.0766</u>
342.2023	---	3	L	16 1990.1191 <u>995.5632</u>
471.2449	---	4	E	15 1877.0350 <u>939.0211</u>
627.3461	<u>314.1767</u>	5	R	14 1747.9924 <u>874.4998</u>
<u>805.4658</u>	<u>403.2365</u>	6	K(50.0248)	13 1591.8913 <u>796.4493</u>
<u>904.5342</u>	<u>452.7708</u>	7	V	12 1413.7715 <u>707.3894</u>
1033.5768	<u>517.2920</u>	8	E	11 <u>1314.7031</u> <u>657.8552</u>
1120.6088	<u>560.8081</u>	9	S	10 <u>1185.6605</u> <u>593.3339</u>
1233.6929	<u>617.3501</u>	10	L	9 <u>1098.6285</u> <u>549.8179</u>
<u>1361.7515</u>	<u>681.3794</u>	11	Q	8 <u>985.5444</u> <u>493.2758</u>
1490.7941	<u>745.9007</u>	12	E	7 <u>857.4858</u> <u>429.2466</u>
1619.8367	<u>810.4220</u>	13	E	6 <u>728.4433</u> <u>364.7253</u>
1732.9207	<u>866.9640</u>	14	I	5 <u>599.4007</u> <u>300.2040</u>
1803.9579	<u>902.4826</u>	15	A	4 <u>486.3166</u> <u>243.6619</u>
1951.0263	<u>976.0168</u>	16	F	3 <u>415.2795</u> <u>208.1434</u>
2064.1103	<u>1032.5588</u>	17	L	2 <u>268.2111</u> <u>134.6092</u>
---	---	18	K(8.0142)	1 <u>155.1270</u> <u>78.0671</u>