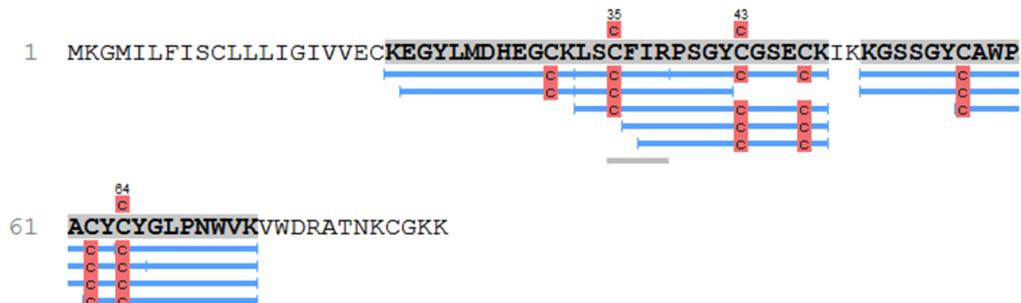


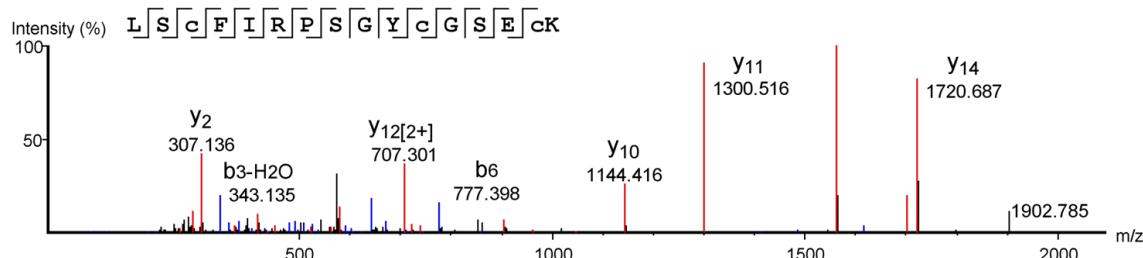
Tb1, a neurotoxin from *Tityus bahiensis* scorpion venom, induces epileptic seizures by increasing glutamate release

Emidio Beraldo Neto Lucas Alves de Freitas, Daniel Carvalho Pimenta, Ivo Lebrun and Ana L. A. Nencioni



Acession	Coverage	-10lgP	Peptides	Unique Peptides	Avg. Mass
P5661	60%	176.24	14	13	9384

Figure S1. Result of the coverage and reliability of identification of Tb1 against Arachnida database and the respective peptides found.



#	Immonium	b	b-H2O	b-NH3	a	c-H	b (2+)	Seq	y	y-H2O	y-NH3	y (2+)	#
1	86.097	114.092	96.081	97.065	86.145	130.111	57.546	L					16
2	60.045	201.124	183.113	184.097	173.129	217.084	101.062	S	1807.756	1789.745	1790.729	904.316	15
3	133.043	361.141	343.135	344.128	333.160	377.174	181.077	C(+57.02)	1720.687	1702.679	1703.697	860.862	14
4	120.081	508.208	490.197	491.206	480.210	524.242	254.611	F	1560.656	1542.683	1543.666	780.847	13
5	86.145	621.307	603.256	604.332	593.312	637.326	311.154	I	1413.625	1395.614	1396.598	707.301	12
6	129.114	777.398	759.398	760.381	749.413	793.427	389.204	R	1300.516	1282.530	1283.514	650.770	11
7	70.066	874.461	856.450	857.342	846.466	890.480	437.730	P	1144.416	1126.429	1127.413	572.720	10
8	60.045	961.493	943.482	944.466	933.498	977.512	481.246	S	1047.335	1029.376	1030.360	524.193	9
9	30.034	1018.514	1000.504	1001.487	990.519	1034.534	509.757	G	960.384	942.344	943.328	480.677	8
10	136.076	1181.578	1163.567	1164.551	1153.583	1197.597	591.259	Y	903.333	885.323	886.307	452.182	7
11	133.043	1341.608	1323.598	1324.581	1313.613	1357.628	671.269	C(+57.02)	740.195	722.185	723.234	370.630	6
12	30.034	1398.630	1380.619	1381.603	1370.635	1414.638	699.815	G	580.229	562.207	563.213	290.620	5
13	60.045	1485.586	1467.651	1468.635	1457.667	1501.681	743.380	S	523.210	505.207	506.191	262.098	4
14	102.055	1614.713	1596.694	1597.677	1586.709	1630.724	807.852	E	436.185	418.182	419.159	218.593	3
15	133.043	1774.735	1756.725	1757.708	1746.740	1790.754	887.868	C(+57.02)	307.136	289.126	290.104	154.072	2
16	101.108							K	147.113	129.102	130.086	74.056	1

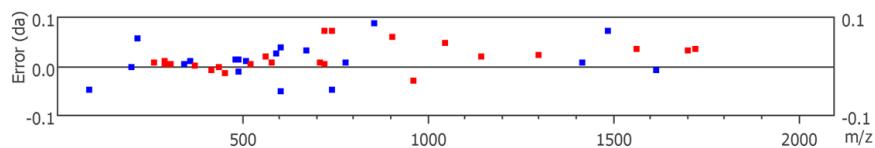


Figure S2. Spectrum from ion 1919.8328 tryptic peptides identified for Tb1 with ion table and error map. Spectrum from ion 1919.8328 tryptic peptides identified for Tb1 with error map.

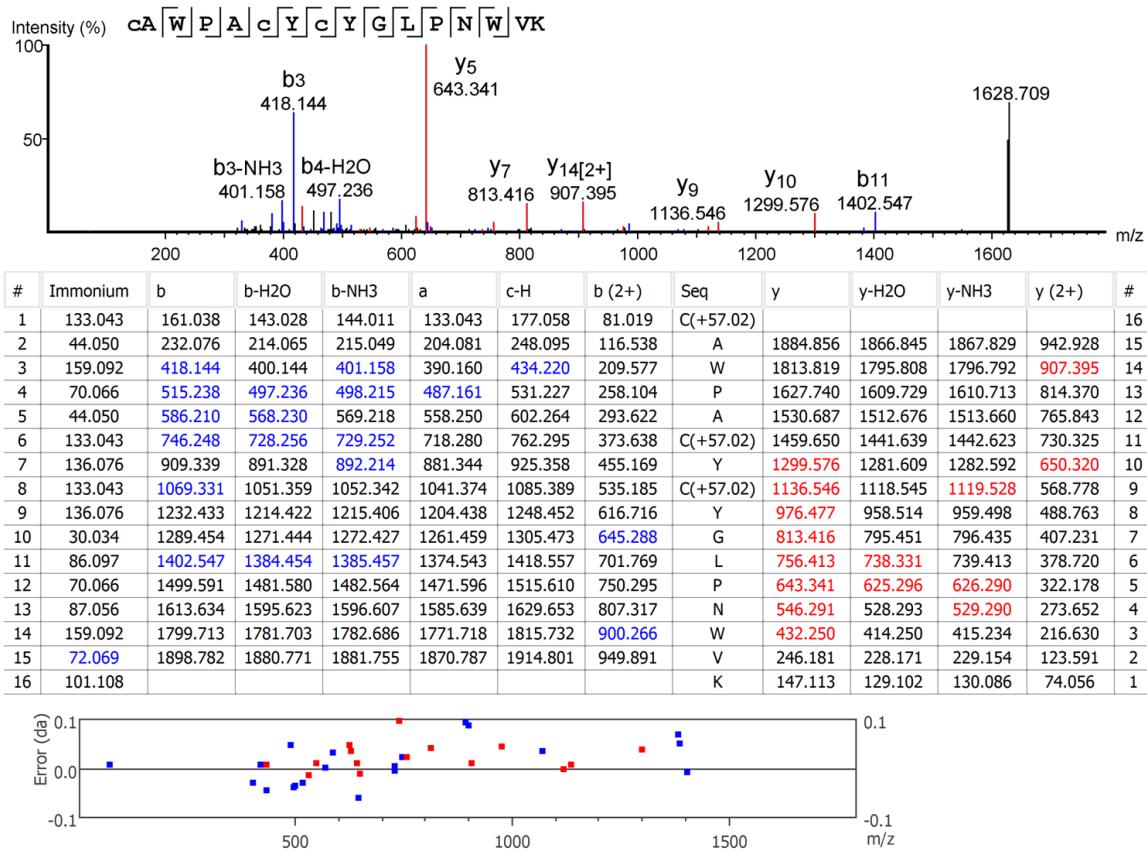


Figure S3. Spectrum from ion 2043.8794 tryptic peptides identified for Tb1 with ion table and error map.

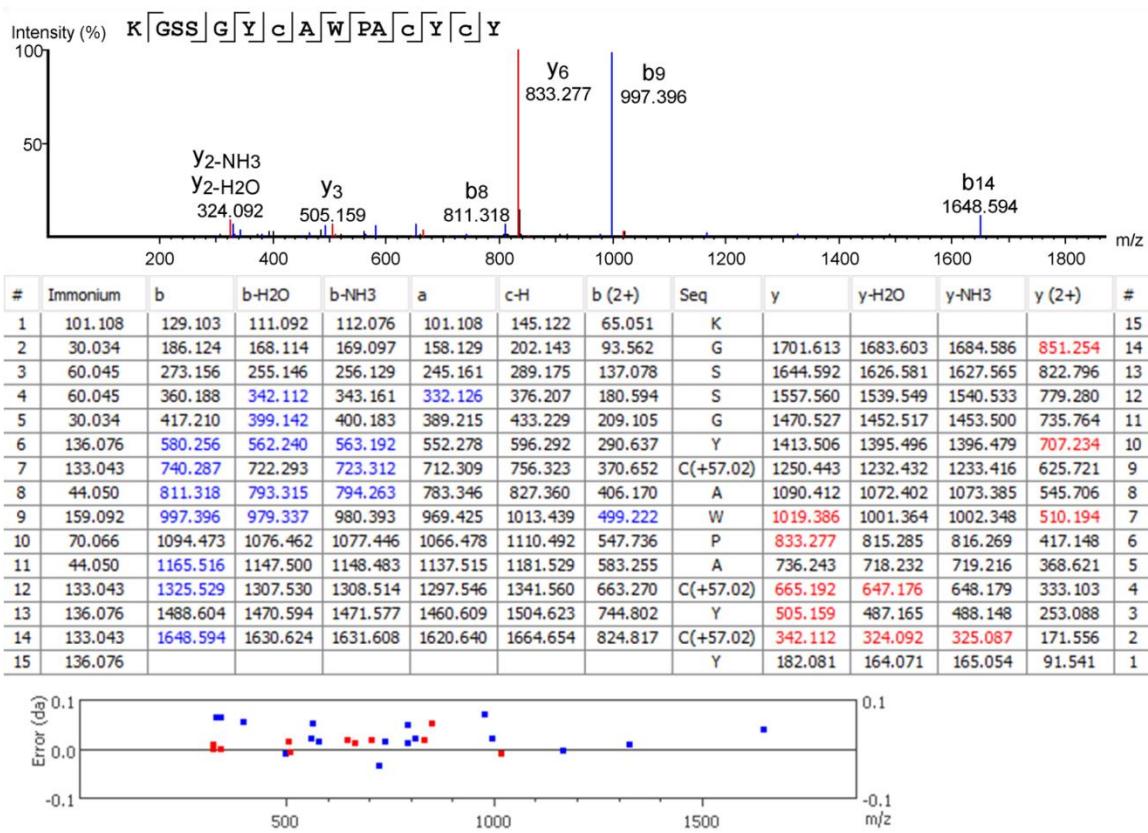
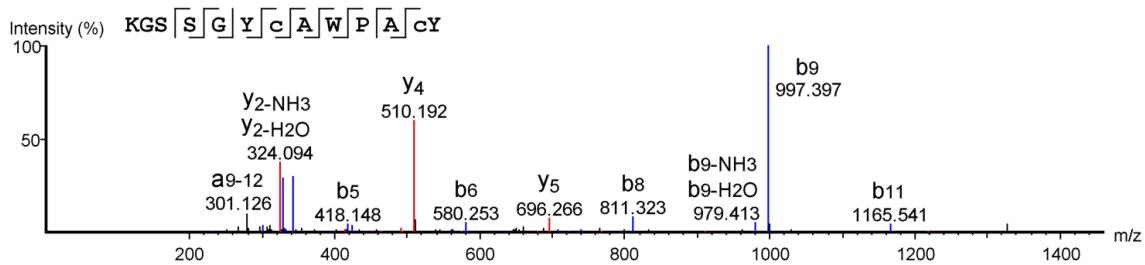


Figure S4. Spectrum from ion 1828.7007 tryptic peptides identified for Tb1 with ion table and error map.



#	Immonium	b	b-H2O	b-NH3	a	c-H	b (2+)	Seq	y	y-H2O	y-NH3	y (2+)	#
1	101.108	129.103	111.092	112.076	101.108	145.122	65.051	K					13
2	30.034	186.124	168.114	169.097	158.129	202.143	93.562	G	1378.519	1360.509	1361.492	689.760	12
3	60.045	273.156	255.146	256.129	245.161	289.175	137.078	S	1321.498	1303.487	1304.471	661.249	11
4	60.045	360.188	342.104	343.112	332.128	376.207	180.594	S	1234.466	1216.455	1217.496	617.733	10
5	30.034	417.169	399.192	400.183	389.215	433.229	209.105	G	1147.434	1129.423	1130.407	574.231	9
6	136.076	580.253	562.240	563.246	552.278	596.292	290.637	Y	1090.412	1072.402	1073.385	545.706	8
7	133.043	740.279	722.250	723.277	712.309	756.323	370.652	C(+57.02)	927.349	909.336	910.339	464.171	7
8	44.050	811.323	793.340	794.314	783.346	827.360	406.170	A	767.375	749.308	750.291	384.159	6
9	159.092	997.397	979.413	980.416	969.425	1013.439	499.210	W	696.266	678.270	679.261	348.641	5
10	70.066	1094.473	1076.462	1077.446	1066.478	1110.492	547.736	P	510.192	492.199	493.198	255.601	4
11	44.050	1165.541	1147.500	1148.483	1137.515	1181.529	583.242	A	413.147	395.138	396.122	207.074	3
12	133.043	1325.541	1307.530	1308.514	1297.546	1341.560	663.270	C(+57.02)	342.104	324.094	325.089	171.556	2
13	136.076							Y	182.081	164.071	165.054	91.541	1

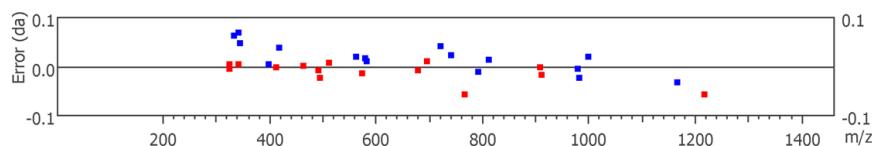
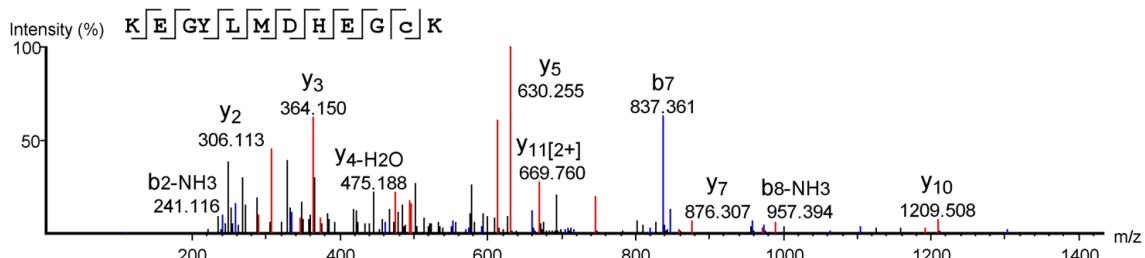


Figure S5. Spectrum from ion 1505.6067 tryptic peptides identified for Tb1 with ion table and error map.



#	Immonium	b	b-H2O	b-NH3	a	c-H	b (2+)	Seq	y	y-H2O	y-NH3	y (2+)	#
1	101.108	129.103	111.092	112.150	101.108	145.122	65.051	K					12
2	102.055	258.137	240.135	241.116	230.150	274.165	129.573	E	1338.545	1320.535	1321.518	669.760	11
3	30.034	315.167	297.156	298.140	287.172	331.186	158.083	G	1209.508	1191.436	1192.439	605.251	10
4	136.076	478.230	460.199	461.203	450.235	494.249	239.615	Y	1152.481	1134.471	1135.454	576.741	9
5	86.097	591.326	573.234	574.287	563.319	607.333	296.157	L	989.400	971.432	972.356	495.177	8
6	104.053	722.355	704.353	705.328	694.360	738.374	361.677	M	876.307	858.360	859.307	438.667	7
7	88.040	837.361	819.363	820.310	809.387	853.401	419.191	D	745.286	727.283	728.266	373.168	6
8	110.072	974.392	956.430	957.394	946.446	990.460	487.720	H	630.255	612.243	613.241	315.633	5
9	102.055	1103.469	1085.473	1086.456	1075.488	1119.502	552.215	E	493.194	475.188	476.181	247.104	4
10	30.034	1160.505	1142.494	1143.478	1132.510	1176.524	580.752	G	364.150	346.132	347.138	182.582	3
11	133.043	1320.535	1302.486	1303.508	1292.540	1336.554	660.758	C(+57.02)	307.128	289.133	290.122	154.072	2
12	101.108							K	147.113	129.102	130.086	74.056	1

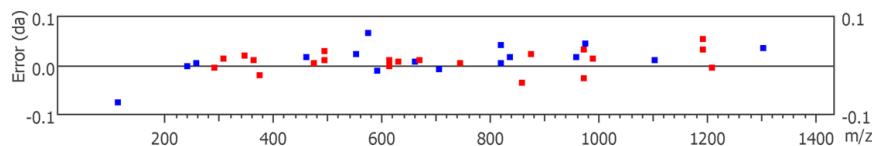


Figure S6. Spectrum from ion 1465.6329 tryptic peptides identified for Tb1 with ion table and error map.

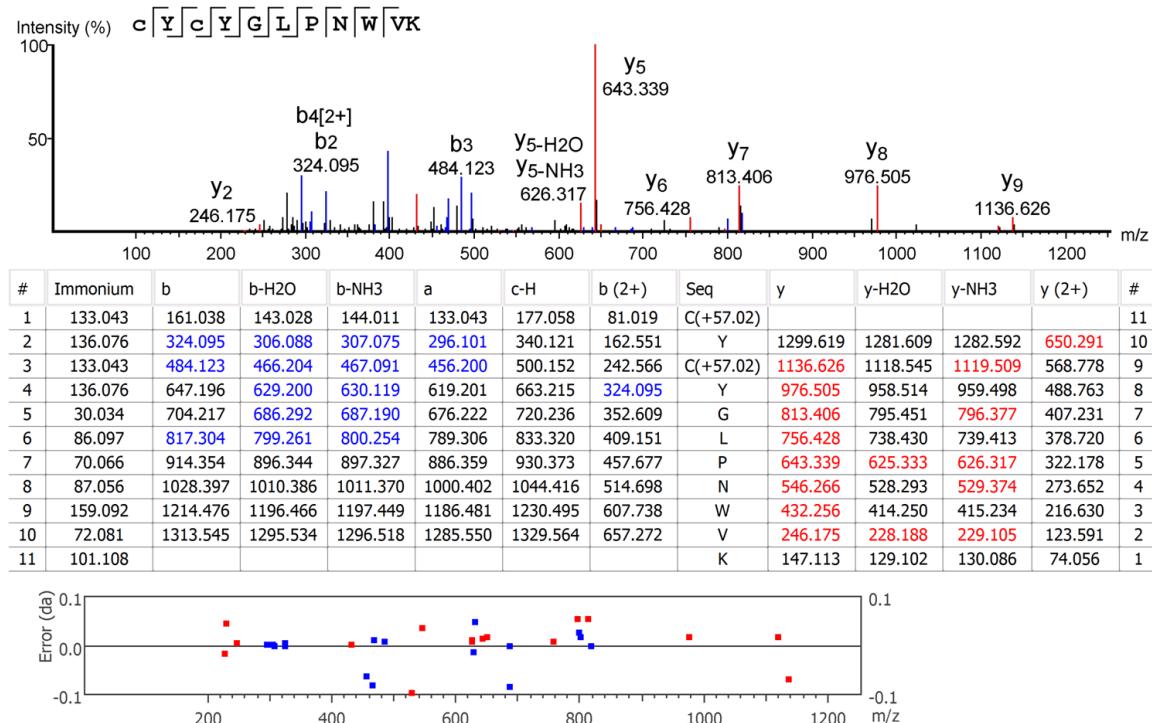


Figure S7. Spectrum from ion 1458.6425 tryptic peptides identified for Tb1 with ion table and error map.

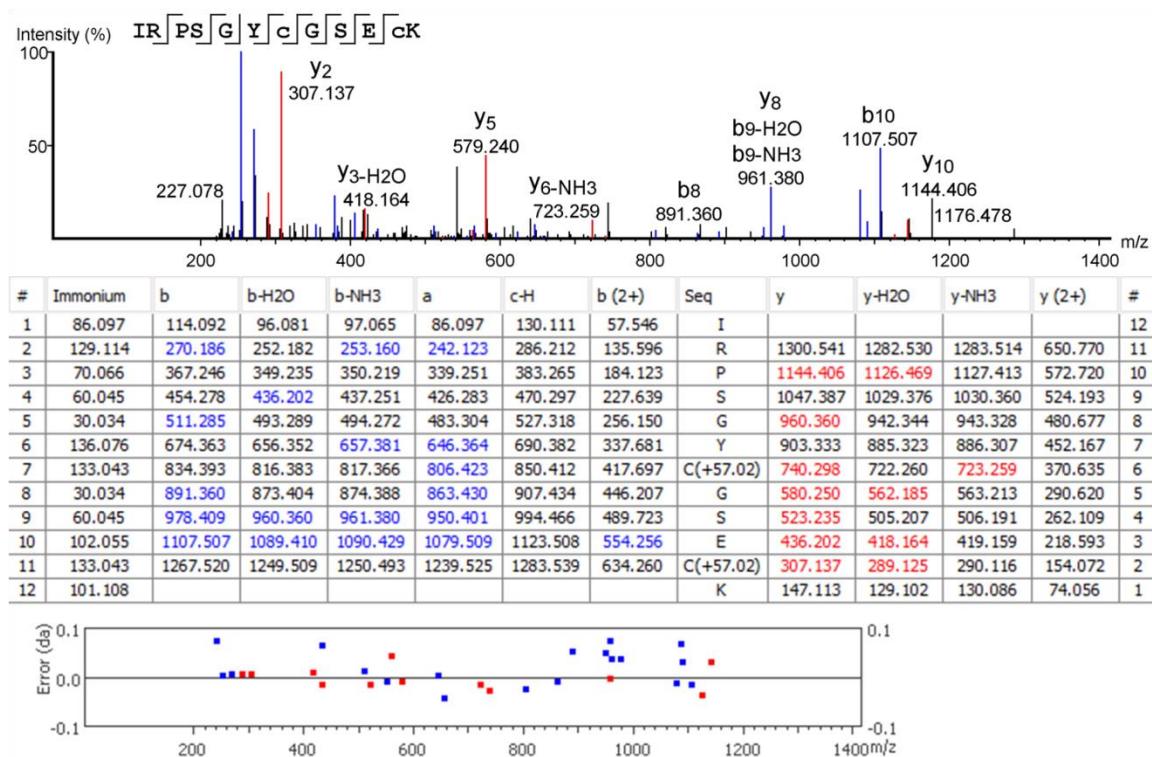


Figure S8. Spectrum from ion 1412.6177 tryptic peptides identified for Tb1 with ion table and error map.

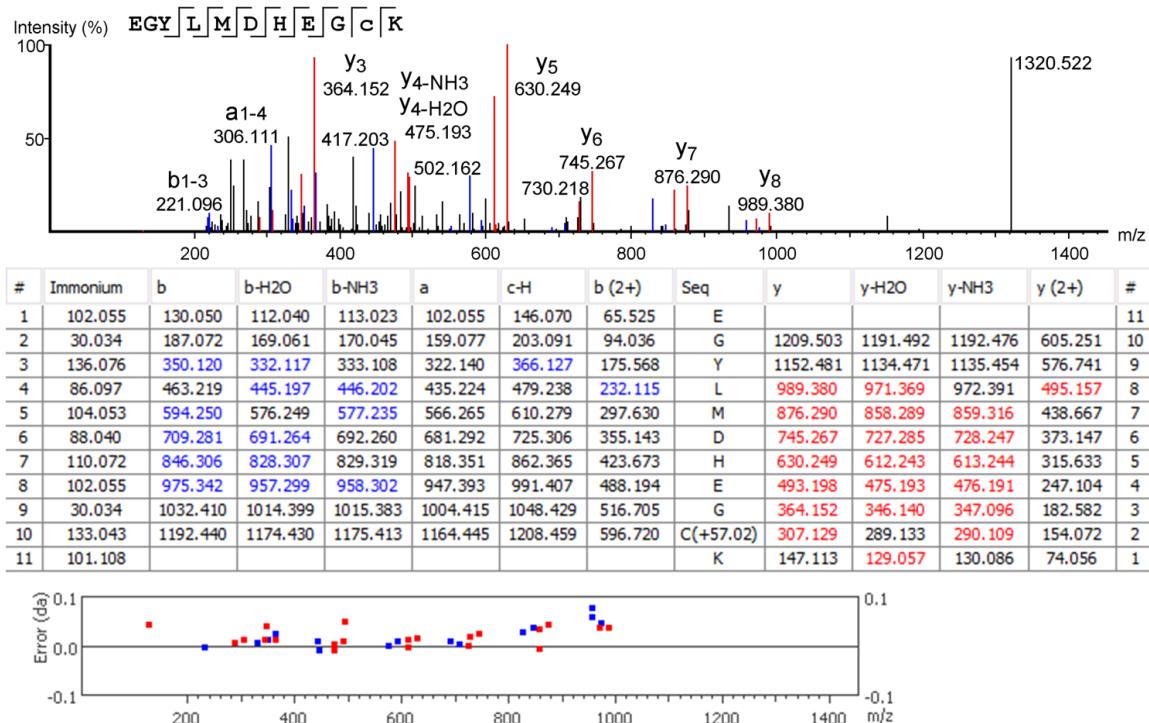


Figure S9. Spectrum from ion 1337.538 tryptic peptides identified for Tb1 with ion table and error map.

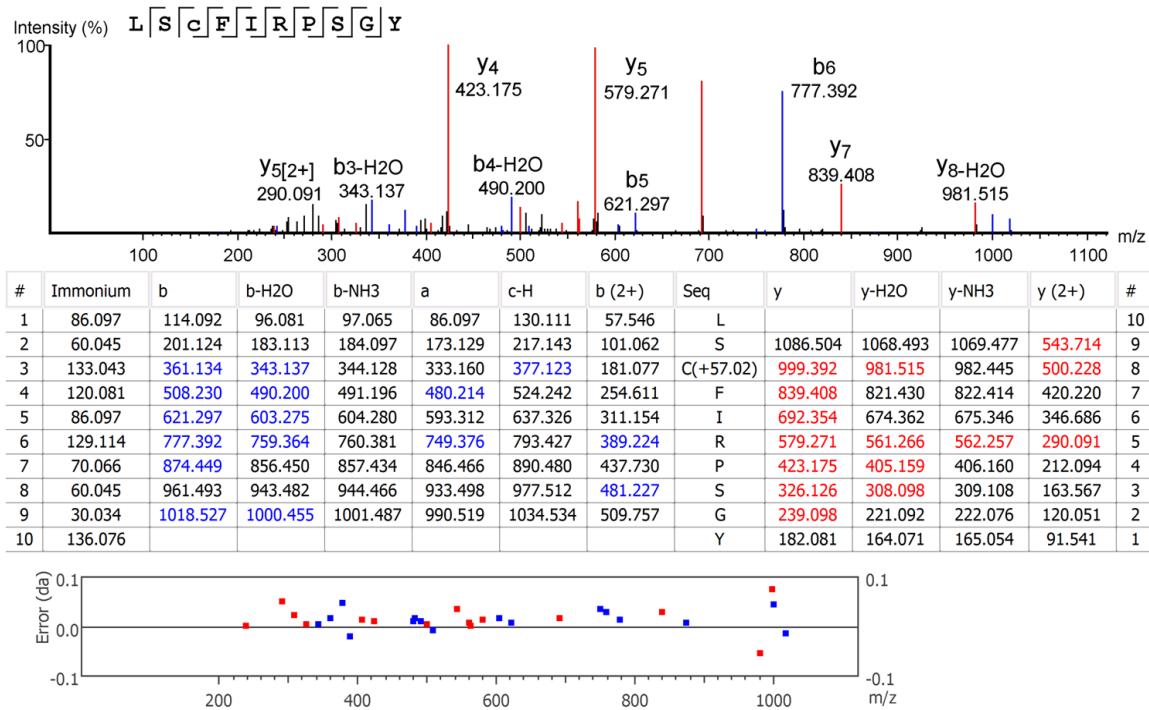


Figure S10. Spectrum from ion 1198.5804 tryptic peptides identified for Tb1 with ion table and error map.

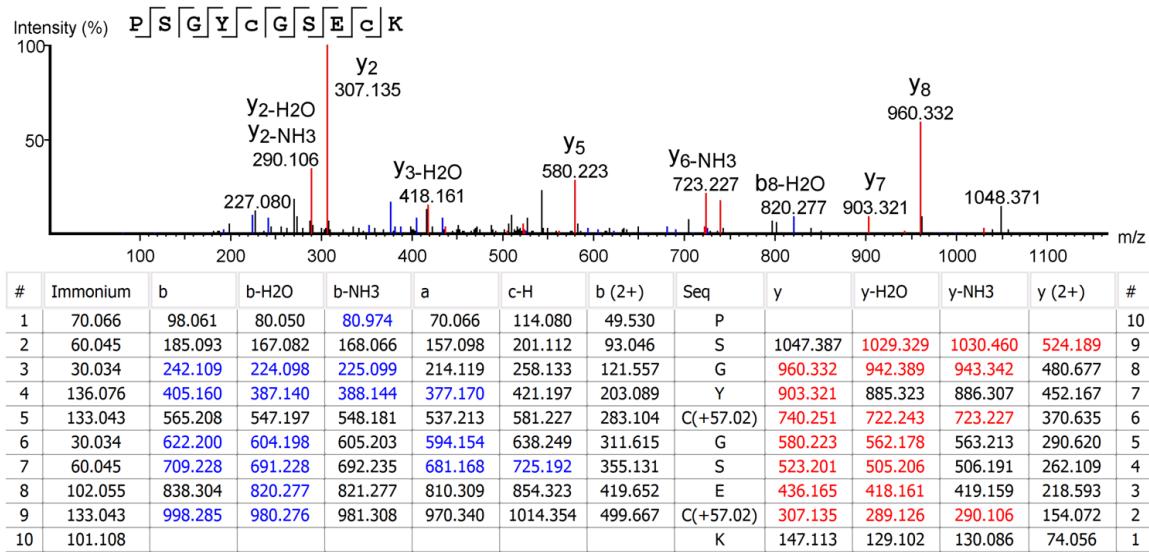


Figure S11. Spectrum from ion 1143.4325 tryptic peptides identified for Tb1 with ion table and error map.

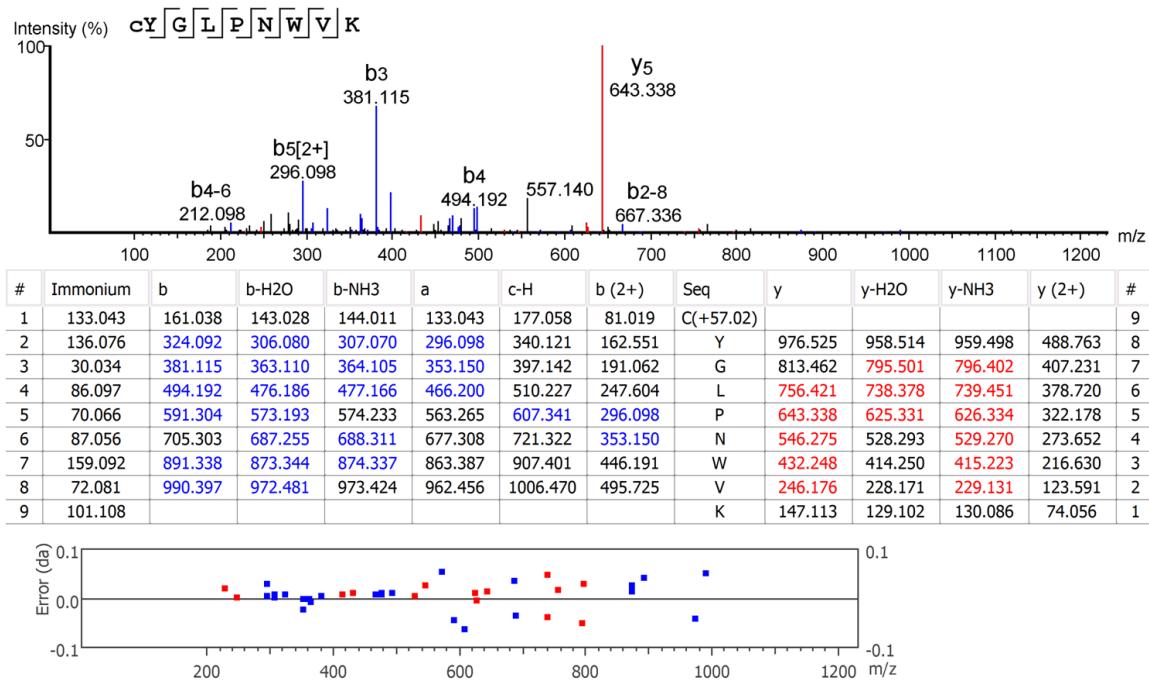


Figure S12. Spectrum from ion 1135.5485 tryptic peptides identified for Tb1 with ion table and error map.

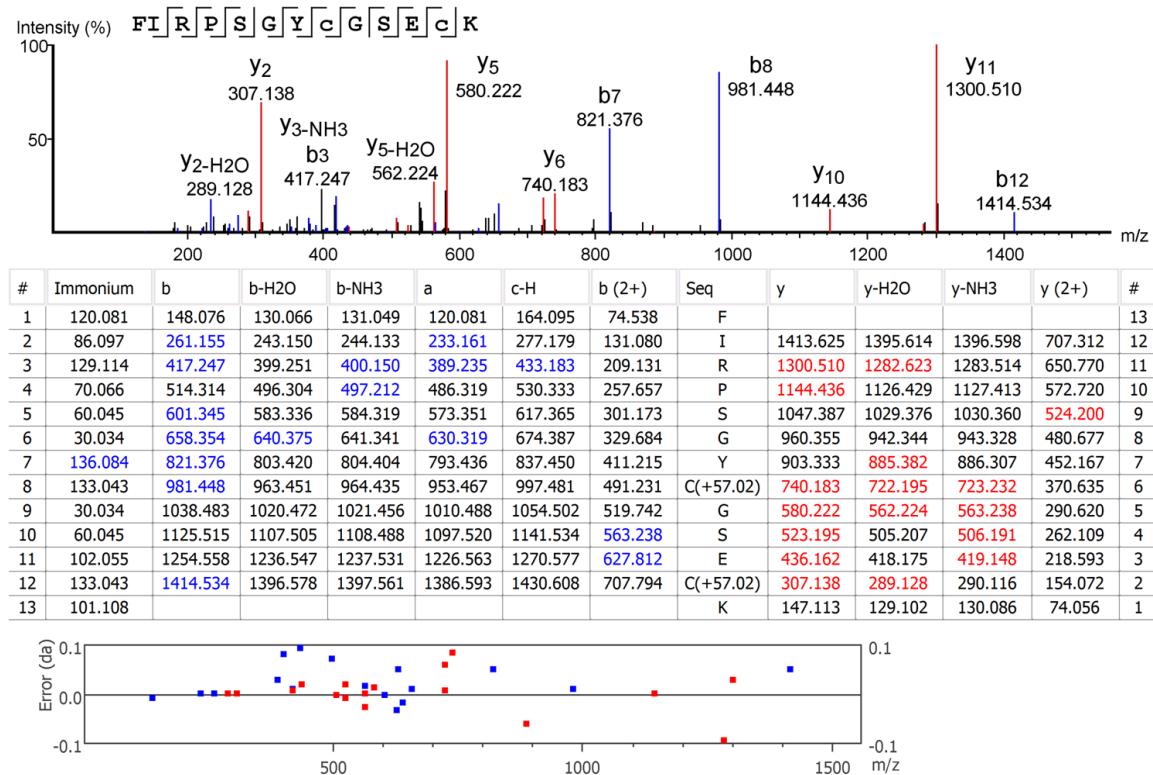


Figure S13. Spectrum from ion 1559.686 tryptic peptides identified for Tb1 with ion table and error map.

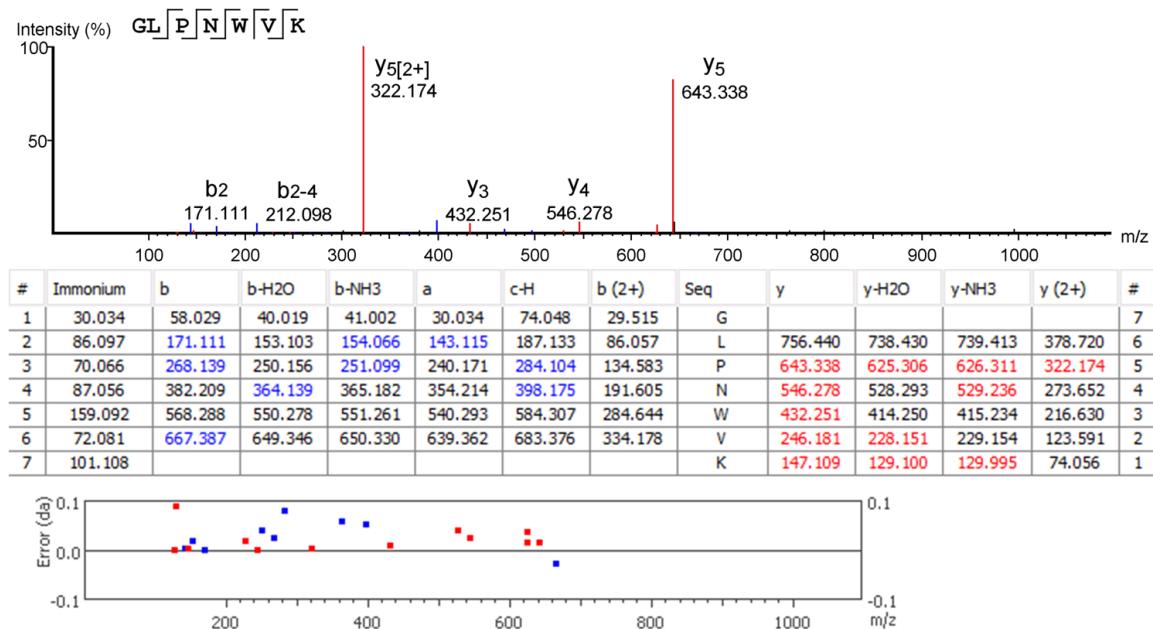


Figure S14. Spectrum from ion 812.4545 tryptic peptides identified for Tb1 with ion table and error map.

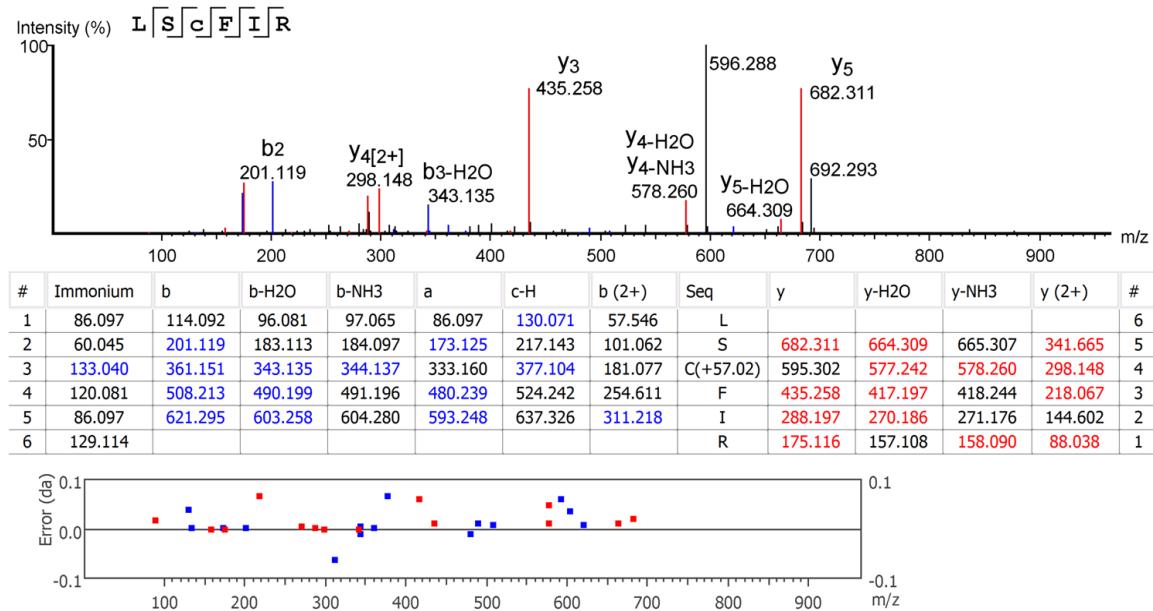


Figure S15. Spectrum from ion 794.4109 tryptic peptides identified for Tb1 with ion table and error map.

Table S1. List of peptides identified for Tb1.

Peptide	-10lgP	Mass	ppm	m/z	RT	Scan
C(+57.02*)AWPAC(+57.02*)YC(+57.02*)YGLPNWVK	49.71	2043.8794	41.8	10.229.897	0.49	270
LSC(+57.02*)FIRPSGYC(+57.02*)GSEC(+57.02*)K	62.56	1919.8328	-25.8	6.409.350	0.31	149
KGSSGYC(+57.02*)AWPAC(+57.02*)YC(+57.02*)Y	51	1828.7007	-18.6	9.153.406	0.38	258
FIRPSGYC(+57.02*)GSEC(+57.02*)K	45.78	1559.686	-18.5	5.208.930	0.25	67
KGSSGYC(+57.02*)AWPAC(+57.02*)Y	44.06	1505.6067	-35.1	7.537.842	0.34	216
KEGYLMDHEGC(+57.02*)K	46.59	1465.6329	-124.4	7.337.326	0.21	210
C(+57.02*)YC(+57.02*)YGLPNWVK	44.38	1458.6425	-26.2	7.303.094	0.42	208
IRPSGYC(+57.02*)GSEC(+57.02*)K	31.02	1412.6177	5.5	7.073.200	0.2	197
EGYLMDHEGC(+57.02*)K	53.48	1337.538	-23.4	6.697.606	0.24	177
LSC(+57.02*)FIRPSGY	44.89	1198.5804	-22.3	6.002.841	0.35	127
PSGYC(+57.02*)GSEC(+57.02*)K	48.93	1143.4325	-23.5	5.727.101	0.17	98
C(+57.02*)YGLPNWVK	37.23	1135.5485	-33.5	5.687.625	0.4	90
GLPNWVK	27.14	812.4545	-25.6	4.072.241	0.32	18
LSC(+57.02*)FIR	28.06	794.4109	-20.9	3.982.044	0.27	12

* +57.02: Carbamidomethylation.