Post-translational modifications (PTMs), identified on endogenous huntingtin, cluster within proteolytic domains between HEAT repeats

Tamara Ratovitski,^{1*} Robert O'Meally,² Mali Jiang,¹ Raghothama Chaerkady,³ Ekaterine Chighladze,¹ Jacqueline C. Stewart,⁴ Xiaofang Wang,¹ Nicolas Arbez,¹ Elaine Roby,¹Athanasios Alexandris,¹ Wenzhen Duan,^{1,5,6} Ravi Vijayvargia,^{7#} Ihn Sik Seong,⁷ Daniel J. Lavery,⁸ Robert N. Cole, ² and Christopher A. Ross.^{1, 5,6 *}

 ¹ Division of Neurobiology, Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, 600 North Wolfe Street, CMSC 8-121, Baltimore, MD 21287
² Mass Spectrometry and Proteomics Facility, Department of Biological Chemistry, Johns Hopkins University School of Medicine, 733 N. Broadway Street, Suite 371 BRB Baltimore, MD 21205

³ Antibody Discovery and Protein Engineering, MedImmune, One MedImmune Way, Gaithersburg, MD 20878

⁴ Department of Radiation Oncology and Molecular Radiation Sciences, Johns Hopkins University Department of Medicine, David H. Koch Cancer Research Building, 416 A, Baltimore, MD 21287

⁵ Department of Neurology and Program in Cellular and Molecular Medicine, Johns Hopkins University School of Medicine, Baltimore, MD 21287

⁶Departments of Pharmacology and Neuroscience, Johns Hopkins University School of Medicine, Baltimore, MD 21287

 ⁷ Center for Human Genetic Research, Massachusetts General Hospital, Department of Neurology, Harvard Medical School, Simches Research Building Center for Human Genetics 185 Cambridge Street Boston, MA, 02114

⁸ CHDI Foundation/CHDI Management Inc., 155 Village Boulevard, Suite 200, Princeton, NJ 08540

[#]Current address: Department of Biochemistry, M.S. University of Baroda, Vadodara, Gujarat, 390 002, India

*Address correspondence to: Christopher A. Ross (caross@jhu.edu) or Tamara Ratovitski (tratovi1@jhmi.edu), CMSC 8-121, 600 North Wolfe Street, Baltimore, MD 21287, Fax: 410-614-0013

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Figure S1. Purification of endogenous FL-Htt for mass spectrometry from mouse brain.

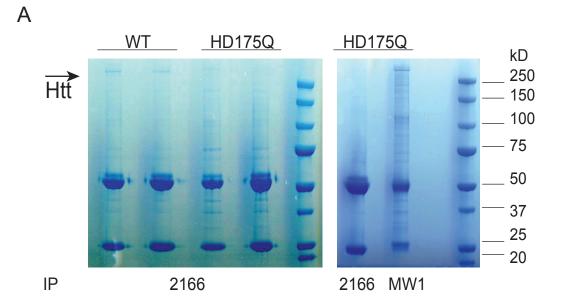
A, Total cell lysates from frozen whole brains of normal WT controls or homozygous KI Q175 mice were prepared as described in the Experimental Section. Htt proteins were immunoprecipitated with either anti-Htt 2166, or with anti-polyQ MW1 antibodies, as indicated, fractionated on NuPAGE 4-12% Bis-Tris polyacrylamide gels and stained with SimplyBlue Safe protein stain. Htt bands are marked with arrows. B, Small aliquots of inputs (1% of the sample), unbound fraction (1% of the sample), and eluted IP material (10% of the sample) were analyzed by Western blotting with antibodies to Htt (MAB2166). Htt protein bands were visualized using Molecular Imager Gel Doc XR System and quantified using Image J software. The results of quantification (shown at the bottom) demonstrate that at least 50% of Htt was remaining in the unbound fraction after pull-down of WT Htt with 2166 antibody, and of expanded Htt with MW1 antibody. Approximately 50% of Htt proteins were recovered from the eluted IP material.

Figure S2. Validation of the specificity of antibodies to PTMs. Total cell lysates were prepared from HEK293 cells transfected with indicated FL-Htt constructs- unmodified and with mutations of the phosphorylation sites. Htt proteins were immunoprecipitated with anti-polyQ MW1 antibody, fractionated on NuPAGE 4-12% Bis-Tris polyacrylamide gels and analyzed by Western blotting with indicated phospho-specific antibodies to Htt. The blots were stripped and re-probed with MW1 antibody for estimation of total Htt levels.

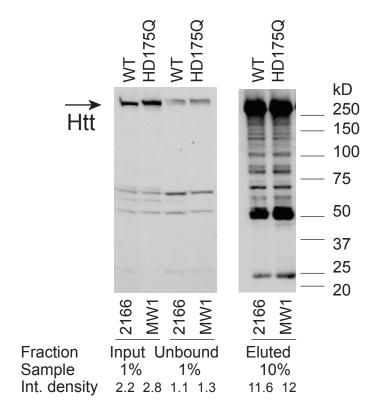
Figure S3. Subcellular localization of expanded Htt is modulated by PTMs. A, Striatal STHdh Q7/Q7 cells, ³⁶ were transfected with indicated constructs encoding full-length Htt-82Q with alterations of phosphorylation (A) or acetylation (B) sites, and without PTM alterations. Cytoplasmic and nuclear fractions were prepared and analyzed as described in the Experimental

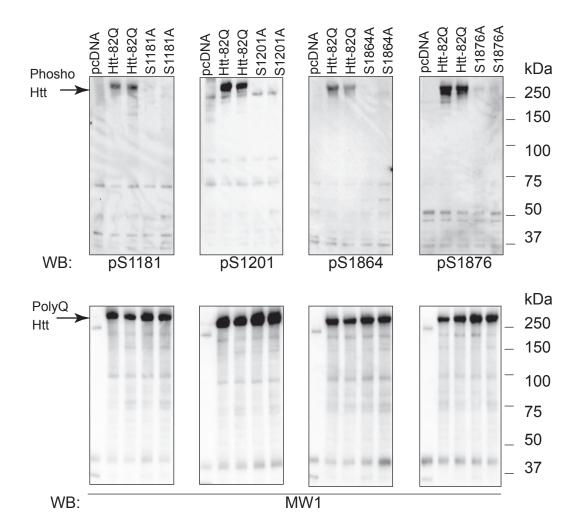
S3

Section and in legend to Figure 7. Representative gels are shown for each construct. Htt protein bands were visualized using Molecular Imager Gel Doc XR System and quantified using Image J software. The results of quantification are presented on Figure 7B as a ratio of nuclear to cytoplasmic mean intensity values (\pm SEM), normalized to histone H1 (nuclear) and β -tubulin (cytoplasmic) as a loading control, for each PTM alteration.



В





A	Htt-82Q	Htt-82Q T271A	Htt-82Q T271A	Htt-82Q T271A	Htt-82Q S2114A	Htt-82Q S2114A	Htt-82Q S2114A	Htt-82Q S2969A	Htt-82Q S2969A	Htt-82Q S2969A	Htt-82Q	Htt-82Q S434D	Htt-82Q S434D	Htt-82Q S434D	
Htt	anne.		1880												Cyto
β -tubulin	-	-		-	Init call	-	-		-		—	-	•	-	
Htt	-				C. Miles				. Linie	****			<u></u>	-	Nucl
Histone H1	-	-	-	-	-	-	-	-	-	-		-	-	-	
			Htt-82Q	Htt-82Q S421A	Htt-82Q S421A	Htt-82Q S421A	Htt-82Q S421D	Htt-82Q S421D	Htt-82Q S421D	Htt-82Q	Htt-82Q S1876A	Htt-82Q S1876A			
	Htt	t	-						-	_		-	Cyt	0	
	β -tub	ulin	-	-	-	-	-	-	-			-			
	Htt	t		-		-					-		Nuc	I	
ŀ	Histone	e H1	•	•	•	•	-	-	-	•					

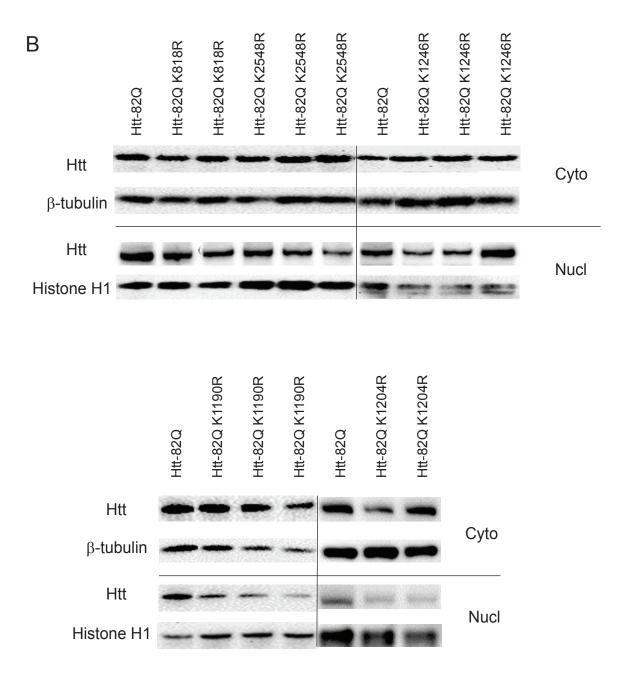
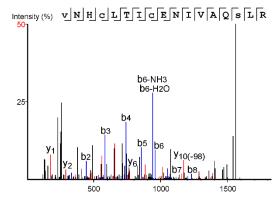


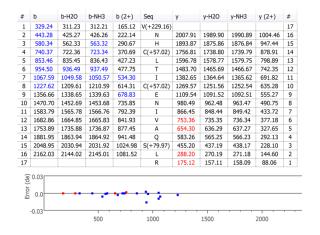
Table S1. Synthetic peptides used to target PTMs on mouse Htt for identification andquantitation in TMT-based mass spectrometry experiments.

Sequence	Modification	Targeted PTM site
EsLKsF	Phosphorylation	S13/S16
VNHCLTICENIVAQsLRNSPEFQK	Phosphorylation	S116
VNHCLTICENIVAQsLRNsPEFQK	Phosphorylation	S116; S120
tAAGSAVSIcQHSR	Phosphorylation	T271
SGsIVELIAGGGSSCSPVLSR	Phosphorylation	S421
SGSIVELLAGGGSscSPVLSR	Phosphorylation	S432
TLkDESSVTCK	Acetylation	K818
AALPSLTNPPSLsPIRR	Phosphorylation	S1181
EkEPGEQASTPMSPK	Acetylation	K1190
EkEPGEQASTPMsPK	Acetylation	K1190/S1201
EPGEQASTPMsPK	Phosphorylation	S1201
kVGEASAASR	Acetylation	K1204
LHDVLkATHANYK	Acetylation	K1246
SLNPQksGEEEDSGSAAQLGMCNR	Acetyl/phospho	K1875/S1876
sGEEEDSGSAAQLGMCNR	Phosphorylation	S1876
sDSALLEGAELVNR	Phosphorylation	S2114
SDsALLEGAELVNR	Phosphorylation	S2116
kLSMIR	Acetylation	K2548
kGFPCEAR	Acetylation	K2969

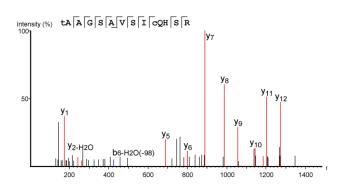
Supplementary spectra

S116-phospho, Htt from mouse brain



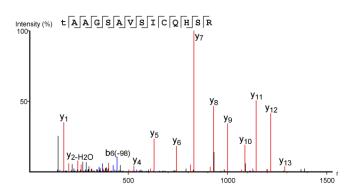


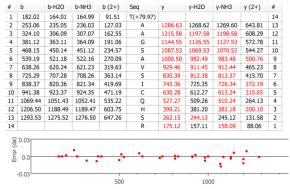
T271-phospho, Htt from mouse brain



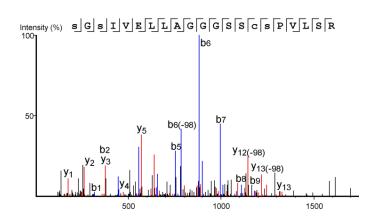
#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	182.02	164.01	164.99	91.51	T(+79.97)					14
2	253.06	235.05	236.03	127.03	Α	1343.65	1325.64	1326.62	672.32	13
3	324.10	306.09	307.07	162.55	Α	1272.61	1254.60	1255.58	636.81	12
4	381.12	363.11	364.09	191.06	G	1201.57	1183.56	1184.56	601.29	11
5	468.15	450.14	451.12	234.57	S	1144.57	1126.54	1127.53	572.78	10
6	539.19	521.18	522.16	270.09	Α	1057.52	1039.51	1040.49	529.26	9
7	638.26	620.24	621.23	319.63	V	986.49	968.47	969.46	493.74	8
8	725.29	707.28	708.26	363.14	S	887.41	869.40	870.39	444.21	7
9	838.37	820.36	821.34	419.69	I	800.39	782.37	783.36	400.69	6
10	998.40	980.39	981.37	499.70	C(+57.02)	687.30	669.29	670.27	344.15	5
11	1126.46	1108.45	1109.43	563.73	Q	527.27	509.26	510.24	264.13	4
12	1263.52	1245.51	1246.49	632.26	н	399.21	381.20	382.18	200.10	3
13	1350.55	1332.54	1333.52	675.78	S	262.15	244.13	245.12	131.58	2
14					R	175.12	157.11	158.09	88.06	1
Error (da)	0.03		•							
	-0.03	200		400	600	800		•	1200	,

T271-phospho, Htt from human brain



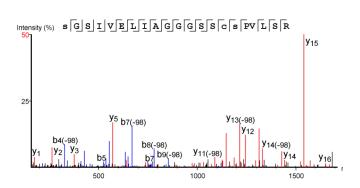


S421-phospho and S434 --phospho, Htt from mouse brain



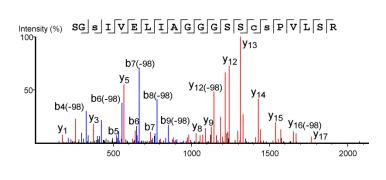
	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
88.04	70.03	71.01	44.52	S					21
145.06	127.05	128.03	73.03	G	2105.93	2087.92	2088.91	1053.47	20
312.06	294.05	295.03	156.53	S(+79.97)	2048.91	2030.90	2031.89	1024.96	19
425.14	407.13	408.12	213.07	I	1881.91	1863.90	1864.89	941.46	18
524.21	506.20	507.19	262.61	V	1768.83	1750.81	1751.80	884.91	17
653.25	635.24	636.23	327.13	E	1669.76	1651.75	1652.75	835.38	16
766.34	748.33	749.31	383.67	L	1540.72	1522.71	1523.72	770.86	15
879.42	861.41	862.40	440.21	I	1427.63	1409.62	1410.62	714.32	14
950.46	932.45	933.45	475.73	Α	1314.55	1296.54	1297.54	657.78	13
1007.48	989.47	990.45	504.24	G	1243.51	1225.50	1226.49	622.26	12
1064.50	1046.49	1047.48	532.75	G	1186.49	1168.48	1169.47	593.75	11
1121.52	1103.51	1104.50	561.26	G	1129.47	1111.45	1112.44	565.24	10
1208.56	1190.55	1191.53	604.78	S	1072.45	1054.43	1055.42	536.72	9
1295.59	1277.58	1278.56	648.29	S	985.42	967.40	968.39	493.21	8
1455.62	1437.62	1438.59	728.31	C(+57.02)	898.38	880.37	881.36	449.69	7
1622.62	1604.61	1605.59	811.81	S(+79.97)	738.35	720.34	721.32	369.68	6
1719.67	1701.66	1702.64	860.34	Р	571.36	553.34	554.33	286.18	5
1818.74	1800.73	1801.71	909.87	V	474.30	456.29	457.28	237.65	4
1931.82	1913.81	1914.80	966.41	L	375.23	357.22	358.21	188.12	3
2018.85	2000.84	2001.83	1009.93	S	262.15	244.14	245.12	131.58	2
				R	175.12	157.11	158.09	88.06	1
	312.06 425.14 524.21 653.25 766.34 879.42 950.46 1007.48 1007.48 1004.50 1121.52 1208.56 1295.59 1455.62 1622.62 1622.62 1719.67 1818.74 1931.82	312.06 294.05 425.14 407.13 524.21 506.32 653.25 635.24 766.34 748.33 979.42 861.41 950.46 932.45 1007.48 989.47 1026.50 1026.56 1120.52 103.51 1205.56 1437.62 1205.56 1437.62 1205.56 1437.62 1205.57 1275.82 1455.62 1437.62 121.52 1437.62 121.52 1437.62 121.52 1437.61 121.52 133.81 131.81 193.181	312.06 294.05 295.03 425.14 407.13 408.12 524.21 506.20 507.19 653.25 635.24 636.23 766.34 748.33 749.31 879.42 861.41 862.40 950.46 932.45 933.45 1007.48 989.47 90.45 1020.51 1045.05 1045.03 1020.52 105.05 119.153 1205.55 127.58 127.58 122.22 143.26 1438.29 125.25 127.58 127.56 125.26 143.04 162.40 125.27 143.61 160.57 126.59 127.56 127.56 125.20 143.61 160.57 126.22 160.64 160.57 127.67 120.26 137.61 128.74 180.73 1801.71 1931.82 193.38 194.80	312.06 294.05 295.03 156.53 425.14 407.13 408.12 213.07 524.21 506.20 507.19 262.61 653.25 635.24 636.23 327.13 766.34 748.33 749.31 383.67 879.42 861.41 862.40 440.21 950.46 932.45 933.45 475.73 1007.48 989.47 90.45 504.24 1005.51 1045.05 1045.05 504.24 1020.56 103.05 119.15 604.29 1205.56 1190.55 104.50 648.29 1255.59 1277.58 1278.56 648.29 1455.62 1430.64 160.59 81.11 1719.67 170.166 1702.64 803.41 1818.74 1800.73 1801.71 909.87 1931.82 1931.83 194.480 966.41	312.06 294.05 295.03 156.53 S(+79.97) 425.14 407.13 408.12 213.07 I 425.14 407.13 408.12 213.07 I 524.21 506.20 507.19 526.61 V 653.25 635.24 636.23 327.13 E 766.34 748.33 749.31 383.67 L 950.46 932.45 933.45 475.73 A 1007.48 989.47 90.45 504.24 G 1121.52 1103.51 1104.50 561.26 G 1205.59 127.55 164.49 1047.48 S 1205.59 127.55 127.85 648.29 S 1455.62 1437.62 1438.59 78.81 C(+57.02) 152.52 160.41 170.266 860.34 P 1818.74 1800.73 180.171 99.87 V 1931.82 1913.81 1914.80 964.4 L <	312.06 294.05 295.03 156.53 S(+79.97) 2048.91 425.14 407.13 408.12 213.07 I 188.191 425.14 407.13 408.12 213.07 I 188.191 5424.1 506.20 507.19 262.61 V 1768.83 653.25 635.24 636.23 327.13 E 1669.76 766.34 748.33 749.31 383.67 L 1540.72 950.46 932.45 933.45 475.73 A 1314.55 1007.49 989.47 90.45 504.24 G 124.31 1045.50 1046.49 1047.48 52.75 G 1186.54 10164.50 1046.49 1047.48 52.75 G 1186.74 1025.50 1191.55 1191.53 604.78 S 107.24 1255.50 1275.56 648.29 S 985.42 1255.52 163.762 1438.59 78.31 C(+57.02) <td< td=""><td>312.06 294.05 295.03 156.53 S(+79.97) 2048.91 2030.90 425.14 407.13 408.12 213.07 I 188.191 1863.90 425.14 407.13 408.12 213.07 I 188.191 1863.90 653.25 635.24 636.23 327.13 E 1669.76 1651.75 766.34 748.33 749.31 383.67 L 1540.72 152.75 950.46 932.45 933.45 475.73 A 1314.55 1265.54 1007.49 989.47 90.45 504.24 G 124.73.1 122.55 10164.50 1046.49 1047.48 52.75 G 118.45 126.54 1007.49 989.47 90.45 504.24 G 124.75.1 122.55 1105.55 1191.55 1191.53 604.78 S 107.49 1054.43 1205.59 127.55 648.29 S 983.84 800.37 103.45 153.34<td>312.06 294.05 295.03 156.53 S(+79.97) 2048.91 203.090 203.189 425.14 407.13 408.12 213.07 I 188.191 186.390 186.49 425.14 407.13 408.12 213.07 I 188.191 186.390 186.49 653.25 635.24 636.23 327.13 E 1669.76 1651.75 1652.75 766.34 748.33 749.13 383.67 L 1540.72 152.71 152.75 766.34 748.33 749.21 814.4 862.40 440.21 1 142.76 140.52 140.52 140.52 140.52 140.52 140.52 140.52 140.52 140.52 140.52 140.52 122.55 122.55 122.55 122.75 118.45 116.44 1162.44 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1555.25 1278.</td><td>312.06 294.05 295.03 156.53 S(+79.97) 2048.91 203.09 203.189 1024.96 425.14 407.13 408.12 213.07 I 1881.91 1863.90 1864.89 941.46 524.21 506.20 507.19 252.61 V 1768.83 1750.81 1750.81 1751.80 884.91 653.25 635.24 636.23 327.13 E 1669.76 1651.75 1652.75 835.38 766.34 748.33 749.13 383.67 L 1540.72 152.72 70.86 879.42 861.44 862.40 40.21 I 142.76 140.52 14.32 950.46 932.45 933.45 475.73 A 131.455 1265.41 140.62 71.43 1007.49 989.47 90.45 504.24 G 124.31 122.54 163.44 164.44 55.24 1007.45 1045.40 1047.45 551.25 127.55 178.55 648.29</td></td></td<>	312.06 294.05 295.03 156.53 S(+79.97) 2048.91 2030.90 425.14 407.13 408.12 213.07 I 188.191 1863.90 425.14 407.13 408.12 213.07 I 188.191 1863.90 653.25 635.24 636.23 327.13 E 1669.76 1651.75 766.34 748.33 749.31 383.67 L 1540.72 152.75 950.46 932.45 933.45 475.73 A 1314.55 1265.54 1007.49 989.47 90.45 504.24 G 124.73.1 122.55 10164.50 1046.49 1047.48 52.75 G 118.45 126.54 1007.49 989.47 90.45 504.24 G 124.75.1 122.55 1105.55 1191.55 1191.53 604.78 S 107.49 1054.43 1205.59 127.55 648.29 S 983.84 800.37 103.45 153.34 <td>312.06 294.05 295.03 156.53 S(+79.97) 2048.91 203.090 203.189 425.14 407.13 408.12 213.07 I 188.191 186.390 186.49 425.14 407.13 408.12 213.07 I 188.191 186.390 186.49 653.25 635.24 636.23 327.13 E 1669.76 1651.75 1652.75 766.34 748.33 749.13 383.67 L 1540.72 152.71 152.75 766.34 748.33 749.21 814.4 862.40 440.21 1 142.76 140.52 140.52 140.52 140.52 140.52 140.52 140.52 140.52 140.52 140.52 140.52 122.55 122.55 122.55 122.75 118.45 116.44 1162.44 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140.52 140.52 140.52 140.52 140.52 140.52 140.52 140.52 140.52 140.52 122.55 122.55 122.55 122.75 118.45 116.44 1162.44 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1154.45 1555.25 1278.	312.06 294.05 295.03 156.53 S(+79.97) 2048.91 203.09 203.189 1024.96 425.14 407.13 408.12 213.07 I 1881.91 1863.90 1864.89 941.46 524.21 506.20 507.19 252.61 V 1768.83 1750.81 1750.81 1751.80 884.91 653.25 635.24 636.23 327.13 E 1669.76 1651.75 1652.75 835.38 766.34 748.33 749.13 383.67 L 1540.72 152.72 70.86 879.42 861.44 862.40 40.21 I 142.76 140.52 14.32 950.46 932.45 933.45 475.73 A 131.455 1265.41 140.62 71.43 1007.49 989.47 90.45 504.24 G 124.31 122.54 163.44 164.44 55.24 1007.45 1045.40 1047.45 551.25 127.55 178.55 648.29

S419-phospho and S434-phospho, hu Htt from HEK293



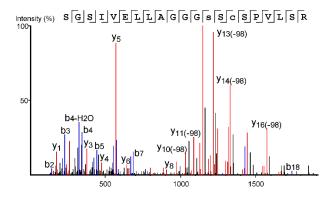
#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	168.01	150.00	150.98	84.50	S(+79.97)					21
2	225.03	207.02	208.00	113.01	G	2025.97	2007.96	2008.94	1013.48	20
3	312.06	294.05	295.03	156.53	S	1968.95	1950.94	1951.92	984.97	19
4	425.14	407.13	408.12	213.07	I	1881.91	1863.90	1864.89	941.46	18
5	524.21	506.20	507.19	262.61	V	1768.83	1750.82	1751.80	884.91	17
6	653.25	635.24	636.23	327.13	E	1669.77	1651.75	1652.75	835.38	16
7	766.34	748.33	749.31	383.67	L	1540.72	1522.71	1523.70	770.86	15
8	879.42	861.41	862.40	440.21	I	1427.63	1409.62	1410.63	714.32	14
9	950.46	932.48	933.45	475.73	A	1314.55	1296.54	1297.54	657.78	13
10	1007.48	989.47	990.45	504.24	G	1243.51	1225.50	1226.50	622.26	12
11	1064.50	1046.49	1047.48	532.75	G	1186.49	1168.48	1169.47	593.75	11
12	1121.52	1103.51	1104.50	561.26	G	1129.47	1111.46	1112.44	565.24	10
13	1208.56	1190.55	1191.53	604.78	S	1072.44	1054.44	1055.42	536.72	9
14	1295.59	1277.58	1278.56	648.29	S	985.41	967.41	968.39	493.21	8
15	1455.62	1437.61	1438.59	728.31	C(+57.02)	898.38	880.37	881.36	449.69	7
16	1622.62	1604.61	1605.59	811.81	S(+79.97)	738.35	720.34	721.32	369.68	6
17	1719.67	1701.66	1702.64	860.34	Р	571.35	553.34	554.33	286.18	5
18	1818.74	1800.73	1801.71	909.87	V	474.30	456.29	457.28	237.65	4
19	1931.82	1913.81	1914.80	966.41	L	375.23	357.22	358.21	188.12	3
20	2018.85	2000.84	2001.83	1009.93	S	262.15	244.14	245.12	131.58	2
21					R	175.12	157.11	158.09	88.06	1

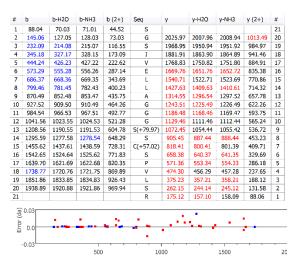
S421-phospho and S434 -phospho, hu Htt from HEK293



#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	317.20	299.19	300.18	159.10	S(+229.16)					21
2	374.22	356.21	357.20	187.61	G	2105.93	2087.92	2088.91	1053.47	20
3	541.22	523.21	524.20	271.11	S(+79.97)	2048.91	2030.90	2031.89	1024.96	19
4	654.31	636.30	637.28	327.65	I	1881.91	1863.90	1864.89	941.46	18
5	753.37	735.36	736.35	377.19	V	1768.83	1750.82	1751.80	884.91	17
6	882.42	864.41	865.39	441.71	E	1669.76	1651.75	1652.73	835.38	16
7	995.50	977.49	978.48	498.25	L	1540.72	1522.71	1523.69	770.86	15
8	1108.58	1090.58	1091.56	554.79	L	1427.63	1409.62	1410.61	714.32	14
9	1179.63	1161.61	1162.60	590.31	A	1314.55	1296.54	1297.55	657.78	13
10	1236.64	1218.63	1219.62	618.82	G	1243.51	1225.51	1226.49	622.24	12
11	1293.67	1275.66	1276.64	647.33	G	1186.48	1168.48	1169.47	593.75	11
12	1350.69	1332.68	1333.66	675.84	G	1129.47	1111.46	1112.44	565.24	10
13	1437.72	1419.71	1420.69	719.36	S	1072.45	1054.44	1055.42	536.72	9
14	1524.75	1506.74	1507.72	762.88	S	985.41	967.41	968.39	493.21	8
15	1684.78	1666.77	1667.76	842.89	C(+57.02)	898.39	880.37	881.36	449.69	7
16	1851.78	1833.77	1834.75	926.39	S(+79.97)	738.35	720.34	721.33	369.68	6
17	1948.83	1930.82	1931.81	974.92	Р	571.36	553.34	554.34	286.18	5
18	2047.90	2029.89	2030.87	1024.45	V	474.30	456.29	457.28	237.65	4
19	2160.99	2142.98	2143.96	1080.99	L	375.24	357.22	358.21	188.12	3
20	2248.02	2230.01	2230.99	1124.51	S	262.15	244.14	245.12	131.58	2
21				1	R	175.12	157.13	158.09	88.06	1

S431-phospho, Htt from mouse brain





b-H2O

70.03 127.05

214.08 327.17

426.24

b

1 2

2 145.00 3 232.09 4 345.18 5 444.25

88.04 145.06 b-NH3

71.01

128.03

215.07

328.15

427.22

b (2+)

44.52 73.03

116.55 173.09

222.62

Seq

G

y-H2O y-NH3

2007.96

1863.90

1750.82

1968.95 1950.94

2008.94

1951.92

1864.89

1751.80

2025.97

1881.91

1768.83

y (2+) #

1013.48

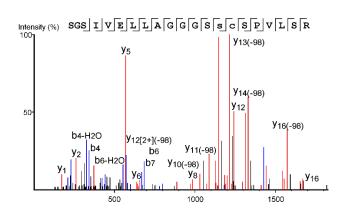
984.97 941.46

884.91 17

21 20

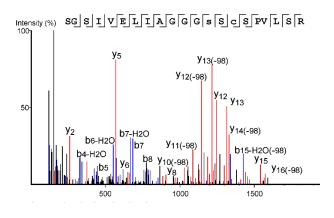
19 18

S432-phospho, Htt from mouse brain



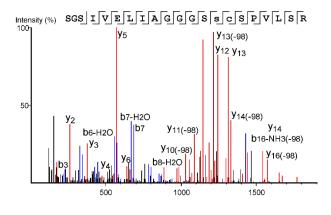
6	573.29	555.28	556.26	287.14	E	1669.74	1651.72	1652.73	835.38	16
7	686.37	668.36	669.35	343.69	L	1540.71	1522.71	1523.69	770.86	15
8	799.46	781.45	782.43	400.23	L	1427.64	1409.62	1410.63	714.32	14
9	870.49	852.48	853.47	435.75	A	1314.55	1296.54	1297.52	657.78	13
10	927.52	909.50	910.49	464.26	G	1243.52	1225.51	1226.49	622.26	12
11	984.54	966.53	967.51	492.77	G	1186.49	1168.48	1169.47	593.75	11
12	1041.56	1023.55	1024.53	521.28	Ģ	1129.47	1111.46	1112.44	565.24	10
13	1128.59	1110.58	1111.56	564.80	S	1072.45	1054.44	1055.42	536.72	9
14	1295.59	1277.58	1278.56	648.29	S(+79.97)	985.42	967.41	968.39	493.21	8
15	1455.62	1437.61	1438.59	728.31	C(+57.02)	818.42	800.41	801.39	409.71	7
16	1542.65	1524.64	1525.62	771.83	S	658.38	640.37	641.35	329.69	6
17	1639.70	1621.69	1622.68	820.35	P	571.36	553.35	554.33	286.18	5
18	1738.77	1720.76	1721.75	869.89	v	474.30	456.29	457.28	237.65	4
19	1851.86	1833.85	1834.83	926.43	L	375.23	357.21	358.21	188.12	3
20	1938.89	1920.88	1921.86	969.94	S	262.15	244.14	245.12	131.58	2
21					R	175.12	157.11	158.09	88.06	1
Error (da)	0.03								1	
Error	0.0	• • •			*		12	2		
	-0.03		500)	1	000		1500		

S431-phospho, hu Htt from HEK293



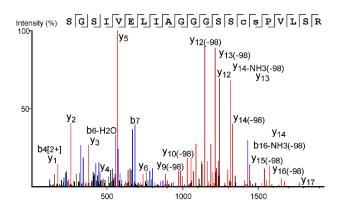
#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	88.04	70.03	71.01	44.52	S					21
2	145.06	127.08	128.03	73.03	G	2025.97	2007.96	2008.94	1013.48	20
3	232.09	214.08	215.07	116.55	S	1968.95	1950.94	1951.92	984.97	19
4	345.18	327.17	328.15	173.08	I	1881.91	1863.90	1864.89	941.46	18
5	444.24	426.23	427.22	222.62	V	1768.83	1750.82	1751.80	884.91	17
6	573.29	555.28	556.26	287.14	E	1669.76	1651.75	1652.73	835.38	16
7	686.37	668.36	669.35	343.69	L	1540.71	1522.71	1523.69	770.86	1
8	799.45	781.45	782.43	400.23	I	1427.63	1409.64	1410.61	714.32	1.
9	870.49	852.48	853.47	435.75	A	1314.55	1296.55	1297.52	657.78	1
10	927.52	909.50	910.49	464.26	G	1243.51	1225.50	1226.49	622.26	1
11	984.54	966.53	967.51	492.77	G	1186.49	1168.48	1169.47	593.75	1
12	1041.56	1023.55	1024.53	521.28	G	1129.47	1111.46	1112.44	565.24	1
13	1208.56	1190.55	1191.53	604.78	S(+79.97)	1072.45	1054.44	1055.42	536.72	9
14	1295.59	1277.58	1278.56	648.29	S	905.44	887.44	888.43	453.23	8
15	1455.62	1437.61	1438.59	728.31	C(+57.02)	818.42	800.41	801.39	409.71	7
16	1542.65	1524.64	1525.62	771.83	S	658.38	640.37	641.35	329.69	6
17	1639.70	1621.69	1622.68	820.35	Р	571.36	553.35	554.33	286.18	5
18	1738.77	1720.76	1721.75	869.89	v	474.30	456.29	457.28	237.65	4
19	1851.86	1833.85	1834.83	926.43	L	375.23	357.22	358.21	188.12	3
20	1938.89	1920.88	1921.86	969.94	S	262.15	244.14	245.12	131.58	2
21			1	1	R	175.12	157.09	158.09	88.06	1

S432-phospho, hu Htt from HEK293



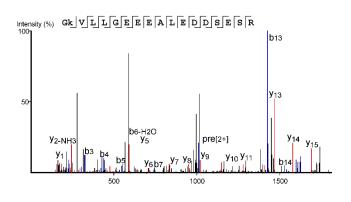
#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	88.04	70.03	71.01	44.52	S					21
2	145.06	127.05	128.03	73.03	G	2025.97	2007.96	2008.94	1013.48	20
3	232.09	214.08	215.07	116.55	S	1968.95	1950.94	1951.92	984.97	19
4	345.18	327.17	328.15	173.08	I	1881.91	1863.90	1864.89	941.46	18
5	444.24	426.23	427.22	222.62	V	1768.83	1750.82	1751.80	884.91	17
6	573.29	555.28	556.26	287.14	E	1669.76	1651.75	1652.73	835.38	16
7	686.37	668.36	669.35	343.69	L	1540.71	1522.71	1523.70	770.86	15
8	799.45	781.44	782.43	400.23	I	1427.63	1409.62	1410.61	714.32	14
9	870.49	852.48	853.47	435.75	A	1314.54	1296.53	1297.52	657.78	13
10	927.51	909.51	910.49	464.26	G	1243.51	1225.50	1226.49	622.26	12
11	984.54	966.53	967.51	492.77	G	1186.49	1168.47	1169.47	593.75	11
12	1041.56	1023.55	1024.53	521.28	G	1129.47	1111.46	1112.44	565.24	10
13	1128.59	1110.58	1111.56	564.80	S	1072.44	1054.43	1055.42	536.72	9
14	1295.59	1277.58	1278.56	648.29	S(+79.97)	985.42	967.40	968.39	493.21	8
15	1455.62	1437.61	1438.59	728.31	C(+57.02)	818.41	800.40	801.39	409.71	7
16	1542.65	1524.64	1525.62	771.83	S	658.38	640.37	641.35	329.69	6
17	1639.70	1621.69	1622.68	820.35	Р	571.35	553.34	554.33	286.18	5
18	1738.77	1720.76	1721.75	869.89	V	474.30	456.29	457.28	237.65	4
19	1851.86	1833.85	1834.83	926.43	L	375.23	357.21	358.21	188.12	3
20	1938.89	1920.88	1921.86	969.94	S	262.15	244.14	245.12	131.58	2
21					R	175.12	157.11	158.09	88.06	1

S434-phospho, hu Htt from HEK293



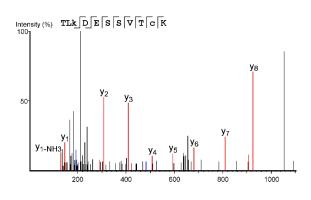
2 14 3 22 4 34 5 44 6 55 7 66 8 79 9 8	32.09 45.18 44.24 73.29 86.37 99.45	70.03 127.05 214.08 327.17 426.23 555.28 668.36 781.44	71.01 128.03 215.07 328.15 427.22 556.26 669.36	44.52 73.03 116.55 173.08 222.62 287.14	S G S I V E	2025.97 1968.95 1881.91 1768.82 1669.75	2007.96 1950.94 1863.90 1750.82	2008.94 1951.92 1864.89 1751.80	1013.50 984.97 941.46 884.91	21 20 19 18 17
3 2: 4 34 5 44 6 5: 7 68 8 79 9 8:	32.09 45.18 44.24 73.29 86.37 99.45	214.08 327.17 426.23 555.28 668.36	215.07 328.15 427.22 556.26	116.55 173.08 222.62 287.14	S I V	1968.95 1881.91 1768.82	1950.94 1863.90 1750.82	1951.92 1864.89 1751.80	984.97 941.46 884.91	19 18
4 34 5 44 6 52 7 68 8 79 9 83	45.18 44.24 73.29 86.37 99.45	327.17 426.23 555.28 668.36	328.15 427.22 556.26	173.08 222.62 287.14	I V	1881.91 1768.82	1863.90 1750.82	1864.89 1751.80	941.46 884.91	18
5 44 6 55 7 68 8 79 9 85	44.24 73.29 86.37 99.45	426.23 555.28 668.36	427.22 556.26	222.62 287.14	V	1768.82	1750.82	1751.80	884.91	
6 57 7 68 8 79 9 87	73.29 86.37 99.45	555.28 668.36	556.26	287.14						17
7 68 8 79 9 8	86.37 99.45	668.36			E	1669.75	4004.04			
8 79 9 8	99.45		669.36			2000000	1651.74	1652.75	835.38	16
9 8		701 44		343.69	L	1540.71	1522.71	1523.71	770.86	15
-	70.40	701.44	782.43	400.23	I	1427.63	1409.62	1410.62	714.32	14
0 93	/0.49	852.48	853.49	435.75	A	1314.55	1296.54	1297.54	657.78	13
	27.51	909.50	910.49	464.26	G	1243.51	1225.50	1226.50	622.26	12
1 9	84.54	966.53	967.53	492.77	G	1186.49	1168.48	1169.47	593.75	11
12 10	41.56 1	1023.55	1024.53	521.28	G	1129.46	1111.45	1112.46	565.24	10
3 11	28.59 1	1110.58	1111.56	564.80	S	1072.44	1054.42	1055.42	536.72	9
14 12	15.62 1	1197.61	1198.60	608.31	S	985.41	967.41	968.39	493.21	8
13	75.65 1	1357.64	1358.63	688.33	C(+57.02)	898.38	880.37	881.36	449.69	7
16 15	42.65 1	1524.64	1525.62	771.83	S(+79.97)	738.35	720.34	721.33	369.68	6
17 16	39.70 1	1621.69	1622.68	820.35	P	571.35	553.34	554.33	286.18	5
18 17	38.77 1	1720.76	1721.75	869.89	V	474.30	456.29	457.28	237.65	4
19 18	51.86 1	1833.85	1834.83	926.43	L	375.23	357.22	358.21	188.12	3
20 19	38.89 1	1920.88	1921.86	969.94	S	262.15	244.14	245.12	131.58	2
21					R	175.12	157.11	158.09	88.06	1

K444-acetyl, hu Htt from HEK293

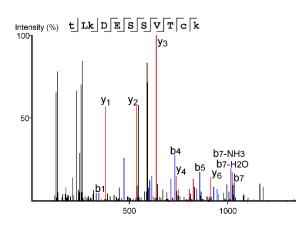


#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	58.03	40.02	41.00	29.51	G					18
2	228.13	210.12	211.11	114.57	K(+42.01)	1960.93	1942.92	1943.91	980.97	17
3	327.20	309.19	310.18	164.10	V	1790.83	1772.82	1773.80	895.91	16
4	440.29	422.28	423.26	220.64	L	1691.76	1673.75	1674.73	846.38	15
5	553.37	535.36	536.34	277.19	L	1578.68	1560.67	1561.65	789.84	14
6	610.39	592.38	593.37	305.70	G	1465.59	1447.58	1448.57	733.30	13
7	739.43	721.42	722.41	370.22	E	1408.56	1390.56	1391.54	704.79	12
8	868.48	850.47	851.45	434.74	E	1279.52	1261.52	1262.50	640.26	11
9	997.52	979.51	980.49	499.26	E	1150.49	1132.49	1133.46	575.74	10
10	1068.56	1050.55	1051.53	534.78	Α	1021.44	1003.43	1004.42	511.24	9
11	1181.64	1163.63	1164.61	591.32	L	950.40	932.40	933.38	475.70	8
12	1310.68	1292.67	1293.66	655.84	E	837.32	819.31	820.30	419.16	7
13	1425.72	1407.71	1408.68	713.36	D	708.27	690.27	691.25	354.64	6
14	1540.71	1522.73	1523.71	770.87	D	593.26	575.24	576.23	297.16	5
15	1627.76	1609.76	1610.74	814.39	S	478.23	460.22	461.20	239.61	4
16	1756.81	1738.80	1739.79	878.91	E	391.20	373.18	374.17	196.10	3
17	1843.84	1825.83	1826.82	922.42	S	262.15	244.17	245.13	131.58	2
18					R	175.12	157.11	158.09	88.06	1
Error (da)	0.03									
þ					1.1			- E - E		e
Ш	0.0			1.1						
	-0.03									
	-0.03			500		1000			1500	

K818-acetyl, Htt from mouse brain



K818-acetyl, Htt from human brain



	b	b-H2O	b-NH3	b(2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	331.22	313.21	314.19	166.11	T(+229.16)					11
2	444.30	426.29	427.28	222.65	L	1437.75	1419.74	1420.72	719.37	10
3	614.41	596.39	597.38	307.70	K(+42.01)	1324.66	1306.65	1307.63	662.83	9
4	729.43	711.42	712.41	365.22	D	1154.56	1136.55	1137.53	577.78	8
5	858.47	840.47	841.46	429.74	E	1039.53	1021.51	1022.50	520.26	7
6	945.51	927.49	928.48	473.26	S	910.49	892.47	893.46	455.74	6
7	1032.54	1014.53	1015.53	516.77	S	823.45	805.44	806.43	412.23	5
8	1131.60	1113.60	1114.58	566.30	V	736.42	718.41	719.40	368.71	4
9	1232.66	1214.65	1215.63	616.83	Т	637.35	619.34	620.35	319.18	3
10	1392.69	1374.68	1375.66	696.84	C(+57.02)	536.31	518.30	519.28	268.65	2
11					K(+229.16)	376.27	358.27	359.25	188.64	1

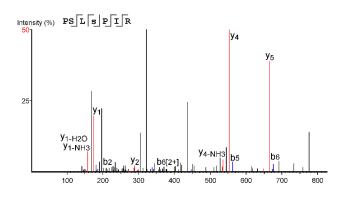
#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	102.06	84.04	85.03	51.53	Т					11
2	215.14	197.13	198.11	108.07	L	1208.58	1190.57	1191.56	604.79	10
3	385.25	367.23	368.22	193.13	K(+42.01)	1095.50	1077.49	1078.47	548.25	9
4	500.27	482.27	483.25	250.64	D	925.39	907.39	908.37	463.20	8
5	629.31	611.30	612.29	315.16	E	810.37	792.36	793.34	405.68	7
6	716.35	698.34	699.32	358.67	S	681.32	663.31	664.30	341.16	6
7	803.38	785.37	786.35	402.19	S	594.30	576.28	577.26	297.65	5
8	902.45	884.44	885.42	451.72	V	507.26	489.25	490.23	254.13	4
9	1003.49	985.48	986.47	502.25	Т	408.19	390.18	391.16	204.60	3
10	1163.53	1145.51	1146.50	582.26	C(+57.02)	307.14	289.13	290.12	154.07	2
11					K	147.11	129.10	130.09	74.06	1
Error (da)	0.03			•						
	-0.03	2	:00	400		500	800		1000	

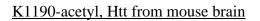
Intensity (%) AA L PSLTN PPSLS PIR **y**8 y₁₀₍₋₉₈₎ y13(-98) 25 У₆ У7(-98) Уз y₁₀ y₁₂₍₋₉₈₎ У₆₍₋₉₈₎ b7 Y₁₃ -98) Y11 200 800 1000 1200 1400 400 600

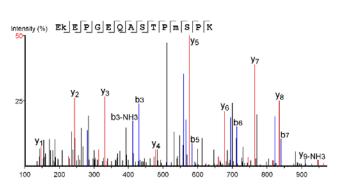
#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	72.04	54.03	55.02	36.52	A				ĺ	16
2	143.08	125.07	126.06	72.04	Α	1642.86	1624.85	1625.83	821.93	15
3	256.17	238.16	239.14	128.58	L	1571.82	1553.81	1554.79	786.41	14
4	353.22	335.21	336.19	177.11	Р	1458.73	1440.73	1441.71	729.87	13
5	440.25	422.24	423.22	220.63	S	1361.68	1343.67	1344.66	681.34	12
6	553.33	535.32	536.31	277.17	L	1274.64	1256.64	1257.62	637.83	11
7	654.39	636.37	637.36	327.69	Т	1161.56	1143.56	1144.55	581.28	10
8	768.43	750.41	751.40	384.71	N	1060.52	1042.52	1043.49	530.76	9
9	865.48	847.47	848.45	433.24	Р	946.48	928.46	929.46	473.74	8
10	962.54	944.53	945.52	481.77	P	849.42	831.41	832.40	425.21	7
11	1049.56	1031.55	1032.54	525.28	S	752.37	734.39	735.34	376.69	6
12	1162.65	1144.64	1145.62	581.82	L	665.34	647.33	648.31	333.17	5
13	1329.65	1311.64	1312.62	665.32	S(+79.97)	552.25	534.24	535.23	276.63	4
14	1426.70	1408.69	1409.67	713.85	Р	385.26	367.25	368.23	193.13	3
15	1539.78	1521.77	1522.76	770.39	I	288.20	270.18	271.18	144.60	2
16					R	175.12	157.10	158.09	88.06	1
Error (da)	0.03	• •	•••		· · ·	•				
	0.00		500	10	00	1500		2000	25	500

S1181-phospho, Htt from mouse brain

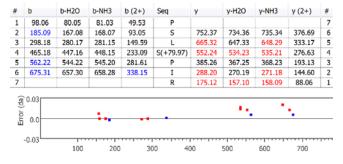
S1181-phospho, Htt from human brain



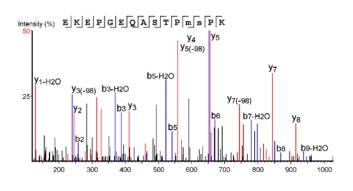




#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	130.05	112.04	113.02	65.53	E					15
2	300.16	282.14	283.13	150.58	K(+42.01)	1544.73	1526.72	1527.70	772.86	14
3	429.20	411.19	412.18	215.10	E	1374.62	1356.61	1357.59	687.81	13
4	526.25	508.24	509.22	263.63	Р	1245.58	1227.57	1228.55	623.29	12
5	583.27	565.26	566.25	292.14	G	1148.53	1130.51	1131.50	574.76	11
6	712.31	694.30	695.29	356.66	E	1091.50	1073.49	1074.48	546.25	10
7	840.37	822.36	823.35	420.69	Q	962.47	944.45	945.44	481.73	9
8	911.41	893.40	894.38	456.21	Α	834.40	816.39	817.38	417.70	8
9	998.44	980.43	981.42	499.72	S	763.36	745.35	746.36	382.18	7
10	1099.49	1081.48	1082.46	550.25	Т	676.33	658.32	659.33	338.65	6
11	1196.54	1178.53	1179.52	598.77	Р	575.28	557.28	558.26	288.14	5
12	1343.58	1325.57	1326.55	672.29	M(+15.99)	478.23	460.22	461.21	239.62	4
13	1430.61	1412.60	1413.58	715.81	S	331.20	313.19	314.17	166.10	3
14	1527.66	1509.65	1510.64	764.33	P	244.17	226.15	227.11	122.58	2
15					K	147.11	129.10	130.09	74.06	1

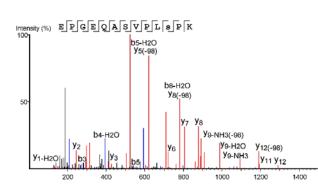


S1201-phospho, Htt from mouse brain



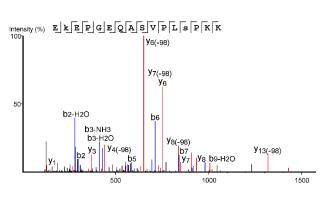
1	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
	130.05	112.04	113.02	65.53	E					1
2	258.15	240.13	241.12	129.57	K	1582.68	1564.67	1565.65	791.84	14
3	387.19	369.18	370.16	194.09	E	1454.59	1436.58	1437.56	727.79	13
4	484.24	466.23	467.21	242.62	Р	1325.54	1307.53	1308.52	663.27	12
5	541.26	523.25	524.24	271.13	G	1228.49	1210.48	1211.46	614.75	1:
6	670.30	652.29	653.28	335.65	E	1171.47	1153.46	1154.44	586.24	10
7	798.36	780.35	781.34	399.68	Q	1042.43	1024.42	1025.40	521.71	9
8	869.40	851.39	852.37	435.20	A	914.37	896.36	897.34	457.68	8
9	956.43	938.43	939.41	478.72	S	843.33	825.32	826.30	422.17	7
10 :	1057.48	1039.47	1040.45	529.24	Т	756.30	738.28	739.27	378.65	6
11	1154.53	1136.52	1137.51	577.77	Р	655.25	637.24	638.23	328.13	5
12	1301.57	1283.56	1284.54	651.31	M(+15.99)	558.20	540.19	541.17	279.60	4
13 :	1468.57	1450.56	1451.54	734.78	S(+79.97)	411.16	393.15	394.14	206.08	3
14	1565.62	1547.61	1548.59	783.31	Р	244.17	226.16	227.14	122.58	2
15					к	147.11	129.10	130.09	74.06	1

S1201-phospho, hu Htt from HEK293



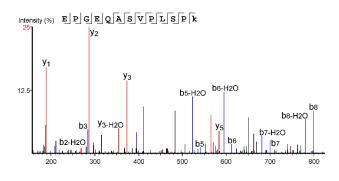
#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	130.05	112.04	113.02	65.53	E					13
2	227.10	209.09	210.08	114.05	Р	1289.61	1271.60	1272.59	645.31	12
3	284.12	266.11	267.10	142.56	G	1192.56	1174.55	1175.52	596.78	11
4	413.17	395.15	396.14	207.08	E	1135.54	1117.52	1118.51	568.27	10
5	541.22	523.21	524.20	271.11	Q	1006.49	988.49	989.47	503.75	9
6	612.26	594.25	595.24	306.63	A	878.44	860.42	861.41	439.72	8
7	699.29	681.28	682.27	350.15	S	807.40	789.39	790.37	404.20	7
8	798.36	780.35	781.34	399.68	V	720.37	702.36	703.34	360.68	6
9	895.42	877.41	878.39	448.18	Р	621.30	603.29	604.27	311.13	5
10	1008.50	990.49	991.47	504.75	L	524.25	506.24	507.22	262.62	4
11	1175.52	1157.49	1158.47	588.25	S(+79.97)	411.16	393.15	394.14	206.08	3
12	1272.55	1254.54	1255.52	636.78	Р	244.16	226.15	227.14	122.58	2
13					K	147.11	129.10	130.09	74.06	1
Error (da)	0.03		•				• •		·	
	-0.03	200		400	600	800		00	1200	1400

K1190-acetyl and S1201-phospho, hu Htt from HEK293



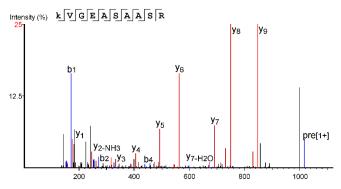
#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	130.05	112.04	113.02	65.53	E					16
2	300.15	282.14	283.13	150.58	K(+42.01)	1716.86	1698.85	1699.83	858.93	15
3	429.20	411.19	412.18	215.10	E	1546.75	1528.74	1529.72	773.88	14
4	526.25	508.24	509.25	263.63	Р	1417.71	1399.70	1400.68	709.35	13
5	583.27	565.26	566.25	292.14	G	1320.66	1302.65	1303.63	660.83	12
6	712.31	694.30	695.29	356.66	E	1263.63	1245.62	1246.61	632.32	11
7	840.37	822.36	823.35	420.69	Q	1134.59	1116.58	1117.56	567.80	10
8	911.41	893.40	894.40	456.21	A	1006.53	988.52	989.51	503.77	9
9	998.44	980.43	981.42	499.72	S	935.49	917.49	918.47	468.25	8
10	1097.51	1079.50	1080.48	549.26	V	848.46	830.45	831.44	424.73	7
11	1194.56	1176.55	1177.54	597.78	Р	749.39	731.38	732.37	375.20	6
12	1307.65	1289.64	1290.62	654.32	L	652.34	634.33	635.32	326.67	5
13	1474.65	1456.64	1457.62	737.82	S(+79.97)	539.26	521.25	522.23	270.11	4
14	1571.70	1553.69	1554.67	786.35	Р	372.26	354.25	355.23	186.63	3
15	1699.79	1681.78	1682.77	850.40	K	275.21	257.20	258.18	138.10	2
16					K	147.11	129.10	130.09	74.06	1
Error	0.03		•	: :		•••				
	-0.03			500			1000			

K1203-acetyl, hu Htt from HEK293



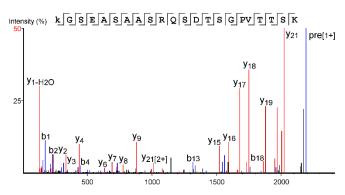
#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	130.05	112.04	113.02	65.53	E					13
2	227.10	209.09	210.08	114.05	Р	1251.66	1233.65	1234.63	626.33	12
3	284.12	266.11	267.10	142.56	G	1154.61	1136.59	1137.58	577.80	11
4	413.17	395.16	396.14	207.08	E	1097.58	1079.57	1080.56	549.29	10
5	541.22	523.21	524.20	271.11	Q	968.54	950.53	951.51	484.77	9
6	612.26	594.25	595.24	306.63	Α	840.48	822.47	823.46	420.74	8
7	699.29	681.28	682.27	350.15	S	769.45	751.43	752.42	385.22	7
8	798.36	780.35	781.35	399.68	V	682.41	664.40	665.39	341.71	6
9	895.41	877.41	878.39	448.18	P	583.34	565.33	566.34	292.17	5
10	1008.50	990.49	991.48	504.75	L	486.29	468.28	469.27	243.65	4
11	1095.53	1077.52	1078.51	548.27	S	373.21	355.20	356.18	187.10	3
12	1192.58	1174.57	1175.56	596.79	Р	286.18	268.17	269.12	143.59	2
13					K(+42.01)	189.12	171.11	172.10	95.06	1
Error (da)		••	•	••••			;-	- ' .		
	-0.03	20	00	400	600		800	1000		1200

K1204-acetyl, Htt from mouse brain



424.18 374.68 346.17	1 9
374.68	8
	-
346.17	-
	1
281.65	6
246.13	5
202.61	4
167.09	3
131.58	2
88.06	1
	246.13 202.61 167.09 131.58

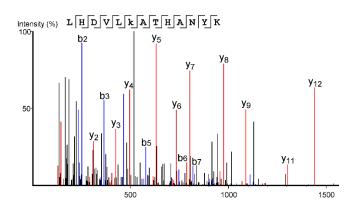
K1204-acetyl, hu Htt from HEK293



#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	171.11	153.10	154.09	86.06	K(+42.01)					22
2	228.13	210.12	211.11	114.57	G	2023.95	2005.94	2006.93	1012.48	21
3	315.17	297.16	298.14	158.08	S	1966.92	1948.91	1949.90	983.97	20
4	444.21	426.20	427.18	222.60	E	1879.89	1861.88	1862.87	940. 4 5	19
5	515.24	497.24	498.22	258.12	Α	1750.85	1732.83	1733.83	875.93	18
6	602.28	584.27	585.25	301.64	S	1679.81	1661.80	1662.80	840.41	17
7	673.32	655.30	656.29	337.19	Α	1592.78	1574.77	1575.76	796.89	16
8	744.34	726.34	727.33	372.68	A	1521.75	1503.74	1504.72	761.38	15
9	831.38	813.37	814.36	416.21	S	1450.71	1432.70	1433.69	725.86	14
10	987.49	969.48	970.46	494.24	R	1363.68	1345.67	1346.63	682.34	13
11	1115.54	1097.53	1098.52	558.27	Q	1207.59	1189.57	1190.55	604.29	12
12	1202.58	1184.57	1185.55	601.79	S	1079.51	1061.51	1062.48	540.26	11
13	1317.59	1299.59	1300.58	659.30	D	992.49	974.48	975.46	496.74	10
14	1418.65	1400.64	1401.62	709.83	Т	877.46	859.45	860.44	439.23	9
15	1505.68	1487.67	1488.66	753.34	S	776.41	758.40	759.39	388.71	8
16	1562.70	1544.69	1545.68	781.85	G	689.38	671.37	672.36	345.19	7
17	1659.76	1641.75	1642.73	830.38	Р	632.36	614.35	615.33	316.68	6
18	1758.81	1740.82	1741.80	879.91	v	535.31	517.30	518.28	268.15	5
19	1859.86	1841.86	1842.85	930.44	т	436.24	418.23	419.23	218.62	4
20	1960.90	1942.91	1943.89	980.96	Т	335.19	317.18	318.17	168.10	3
21	2047.95	2029.94	2030.93	1024.48	S	234.14	216.13	217.12	117.57	2
22					К	147.11	129.10	130.09	74.06	1
	0.03							• * •	71.00	-
	0.0					•		•		
	0.00		500		1000		1500		2000	

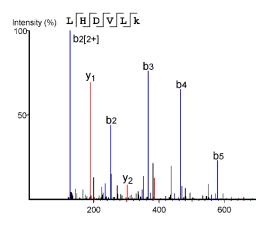
NUO

K1246-acetyl, Htt from mouse brain



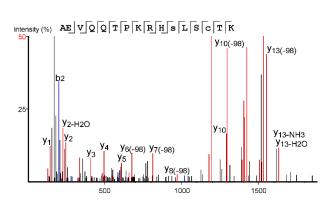
#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	114.09	96.08	97.06	57.55	L					13
2	251.15	233.14	234.12	126.08	н	1438.74	1420.73	1421.72	719.87	12
3	366.18	348.17	349.15	183.59	D	1301.67	1283.67	1284.66	651.34	11
4	465.24	447.24	448.22	233.12	V	1186.66	1168.65	1169.63	593.83	10
5	578.33	560.32	561.30	289.67	L	1087.59	1069.58	1070.57	544.29	9
6	748.43	730.43	731.41	374.72	K(+42.01)	974.50	956.49	957.48	487.75	8
7	819.47	801.46	802.45	410.24	A	804.40	786.39	787.37	402.70	7
8	920.52	902.50	903.51	460.76	Т	733.36	715.35	716.33	367.18	6
9	1057.58	1039.57	1040.55	529.29	Н	632.31	614.30	615.28	316.66	5
10	1128.62	1110.61	1111.57	564.81	A	495.25	477.25	478.23	248.13	4
11	1242.66	1224.65	1225.63	621.83	N	424.21	406.18	407.19	212.61	3
12	1405.72	1387.71	1388.70	703.36	Y	310.18	292.14	293.15	155.59	2
13					K	147.11	129.10	130.09	74.06	1
Error (d	0.03		•••	500	ا مر		1000	•		.500

K1246-acetyl, hu Htt from HEK293



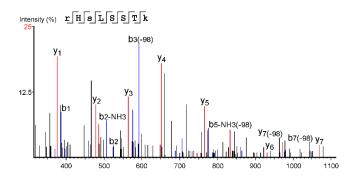
#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	114.09	96.08	97.06	57.55	L					6
2	251.15	233.14	234.12	126.09	н	653.36	635.35	636.33	327.18	5
3	366.18	348.17	349.15	183.59	D	516.30	498.29	499.28	258.65	4
4	465.25	447.23	448.22	233.12	V	401.28	383.28	384.26	201.12	3
5	578.33	560.32	561.32	289.67	L	302.21	284.20	285.18	151.60	2
6					K(+42.01)	189.12	171.11	172.10	95.06	1
	0.03	•	200	4	• • •	• • 600	•	800		1000

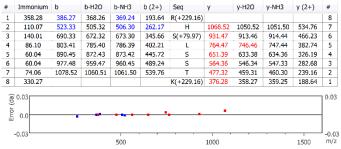
S1864-phospho, Htt from mouse brain



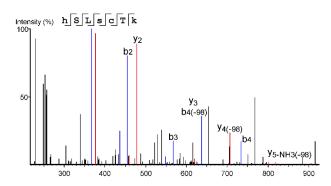
#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	72.04	54.03	55.02	36.52	Α					16
2	201.09	183.08	184.06	101.04	E	1878.89	1860.88	1861.86	939.94	15
3	300.16	282.15	283.13	150.58	V	1749.85	1731.84	1732.82	875.42	14
4	428.21	410.20	411.19	214.61	Q	1650.78	1632.75	1633.74	825.89	13
5	556.27	538.26	539.25	278.64	Q	1522.71	1504.71	1505.68	761.86	12
6	657.32	639.31	640.29	329.16	Т	1394.66	1376.65	1377.63	697.83	11
7	754.37	736.36	737.35	377.69	Р	1293.61	1275.60	1276.59	647.31	10
8	882.47	864.46	865.44	441.73	К	1196.56	1178.55	1179.53	598.78	9
9	1038.57	1020.56	1021.54	519.78	R	1068.47	1050.46	1051.44	534.73	8
10	1175.63	1157.62	1158.60	588.32	н	912.36	894.35	895.34	456.68	7
11	1342.63	1324.62	1325.60	671.81	S(+79.97)	775.31	757.29	758.28	388.15	6
12	1455.71	1437.70	1438.68	728.36	L	608.31	590.30	591.28	304.65	5
13	1542.74	1524.73	1525.72	771.87	S	495.22	477.21	478.20	248.11	4
14	1702.77	1684.76	1685.75	851.89	C(+57.02)	408.19	390.18	391.16	204.60	3
15	1803.82	1785.81	1786.79	902.41	Т	248.16	230.15	231.13	124.58	2
16					К	147.11	129.10	130.08	74.06	1
Error (da)	0.03									
Error	0.0	** ***		*		•	•			
	-0.03		50	0		1000		1500		

S1864-phospho, Htt from human brain





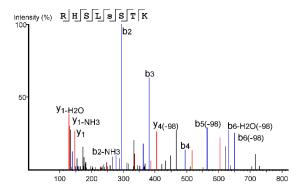
S1866-phospho, Htt from mouse brain



#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	367.23	349.22	350.20	184.11	H(+229.16)		ĺ			7
2	454.26	436.25	437.23	227.63	S	1004.47	986.46	987.44	502.73	6
3	567.35	549.33	550.29	284.17	L	917.44	899.43	900.41	459.22	5
4	734.37	716.36	717.32	367.67	S(+79.97)	804.35	786.34	787.33	402.68	4
5	894.37	876.36	877.35	447.69	C(+57.02)	637.36	619.34	620.33	319.18	3
6	995.42	977.41	978.40	498.21	Т	477.32	459.31	460.30	239.16	2
7					K(+229.16)	376.28	358.27	359.25	188.64	1
Error										
	-0.03			500	· · ·		1000			

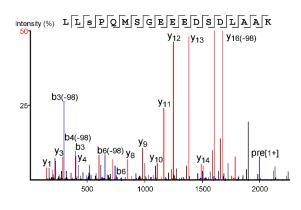
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S1866-phospho, hu Htt from HEK293



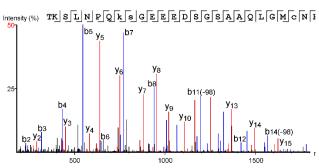
#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	157.11	139.10	140.08	79.05	R					8
2	294.17	276.16	277.14	147.58	н	839.37	821.36	822.34	420.18	7
3	381.20	363.19	364.17	191.10	S	702.31	684.30	685.28	351.65	6
4	494.28	476.27	477.26	247.64	L	615.27	597.26	598.25	308.14	5
5	661.28	643.27	644.26	331.14	S(+79.97)	502.19	484.18	485.16	251.60	4
6	748.31	730.30	731.29	374.66	S	335.19	317.18	318.17	168.10	3
7	849.36	831.35	832.34	425.18	Т	248.16	230.15	231.13	124.58	2
8					К	147.11	129.10	130.09	74.06	1
Error	0.03		•		••••	•				
		100	200	300	400	500	600	700	800	900

S1872-phospho, hu Htt from HEK293



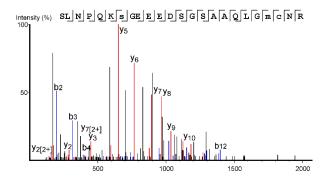
	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	114.09	96.08	97.06	57.55	L					18
2	227.17	209.17	210.15	114.09	L	1886.77	1868.76	1869.75	943.89	17
3	394.17	376.16	377.15	197.59	S(+79.97)	1773.69	1755.67	1756.66	887.34	16
4	491.23	473.22	474.20	246.11	Р	1606.69	1588.67	1589.67	803.85	15
5	619.28	601.28	602.26	310.14	Q	1509.63	1491.63	1492.61	755.32	14
6	750.32	732.32	733.30	375.66	М	1381.58	1363.56	1364.55	691.29	13
7	837.36	819.35	820.33	419.18	S	1250.54	1232.53	1233.51	625.77	12
8	894.38	876.37	877.35	447.69	G	1163.51	1145.49	1146.48	582.25	11
9	1023.42	1005.41	1006.40	512.21	E	1106.48	1088.47	1089.46	553.74	10
10	1152.46	1134.45	1135.44	576.73	E	977.44	959.43	960.42	489.22	9
11	1281.51	1263.50	1264.48	641.25	E	848.40	830.39	831.37	424.70	8
12	1396.53	1378.52	1379.51	698.77	D	719.36	701.35	702.33	360.18	7
13	1483.59	1465.56	1466.54	742.29	S	604.33	586.32	587.30	302.67	6
14	1598.59	1580.58	1581.57	799.80	D	517.30	499.29	500.27	259.15	5
15	1711.68	1693.67	1694.65	856.34	L	402.27	384.26	385.24	201.64	4
16	1782.71	1764.70	1765.69	891.86	A	289.19	271.18	272.16	145.09	3
17	1853.75	1835.74	1836.72	927.38	Α	218.15	200.14	201.12	109.57	2
18			1		ĸ	147.11	129.10	130.09	74.06	1

K1875-acetyl, S1876-phospho, Htt from mouse brain

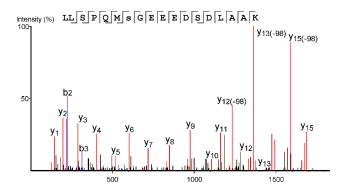


#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	102.06	84.04	85.03	51.53	Т					26
2	230.17	212.14	213.12	115.58	К	2815.24	2797.23	2798.21	1408.12	25
3	317.20	299.17	300.16	159.08	S	2687.14	2669.13	2670.12	1344.07	24
4	430.29	412.27	413.24	215.63	L	2600.11	2582.10	2583.08	1300.56	23
5	544.33	526.32	527.28	272.65	N	2487.03	2469.02	2470.00	1244.01	22
6	641.38	623.35	624.34	321.18	P	2372.98	2354.97	2355.96	1186.99	21
7	769.44	751.41	752.41	385.21	Q	2275.93	2257.92	2258.90	1138.47	20
8	939.55	921.55	922.52	470.28	K(+42.05)	2147.87	2129.86	2130.85	1074.44	19
9	1106.56	1088.55	1089.53	553.78	S(+79.97)	1977.73	1959.72	1960.70	989.38	18
10	1163.58	1145.57	1146.56	582.29	G	1810.73	1792.72	1793.71	905.87	17
11	1292.61	1274.61	1275.60	646.81	E	1753.71	1735.70	1736.71	877.36	16
12	1421.65	1403.66	1404.64	711.33	E	1624.67	1606.66	1607.65	812.83	15
13	1550.70	1532.70	1533.68	775.86	E	1495.63	1477.61	1478.61	748.31	14
14	1665.74	1647.73	1648.71	833.37	D	1366.58	1348.57	1349.56	683.79	13
15	1752.77	1734.76	1735.74	876.88	S	1251.56	1233.54	1234.54	626.28	12
16	1809.79	1791.78	1792.76	905.40	G	1164.52	1146.51	1147.50	582.76	11
17	1896.82	1878.81	1879.80	948.91	S	1107.50	1089.49	1090.47	554.25	10
18	1967.86	1949.85	1950.83	984.43	A	1020.47	1002.46	1003.44	510.74	9
19	2038.90	2020.89	2021.87	1019.95	A	949.43	931.42	932.41	475.22	8
20	2166.96	2148.95	2149.93	1083.98	Q	878.40	860.39	861.37	439.70	7
21	2280.04	2262.03	2263.01	1140.52	L	750.34	732.33	733.31	375.67	6
22	2337.06	2319.05	2320.03	1169.03	G	637.25	619.24	620.23	319.13	5
23	2468.10	2450.09	2451.07	1234.54	м	580.23	562.22	563.21	290.62	4
24	2628.13	2610.12	2611.11	1314.57	C(+57.02)	449.19	431.18	432.17	225.10	3
25	2742.18	2724.16	2725.15	1371.59	N	289.16	271.14	272.13	145.06	2
26					R	175.12	157.11	158.09	88.06	1

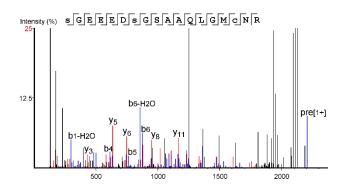
S1876-phospho, Htt from mouse brain



S1876-phospho, Htt from human brain



S1882-phospho, Htt from mouse brain

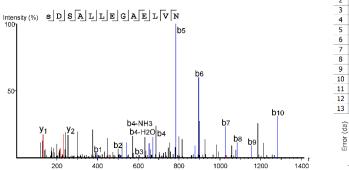


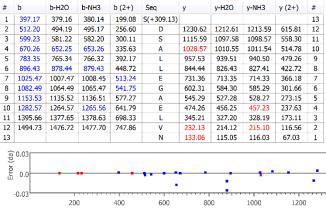
1	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
	88.04	70.03	71.01	44.52	S					24
2	201.12	183.11	184.10	101.06	L	2574.06	2556.05	2557.03	1287.53	23
3	315.17	297.16	298.14	158.09	N	2460.98	2442.97	2443.95	1230.99	22
4	412.22	394.21	395.19	206.61	Р	2346.93	2328.92	2329.91	1173.97	21
5	540.28	522.27	523.25	270.64	Q	2249.88	2231.87	2232.85	1125.44	20
6	668.37	650.36	651.35	334.69	K	2121.82	2103.81	2104.79	1061.41	19
7	835.37	817.36	818.34	418.19	S(+79.97)	1993.73	1975.72	1976.70	997.36	18
8	892.39	874.38	875.37	446.70	G	1826.73	1808.72	1809.70	913.86	17
9	1021.43	1003.42	1004.41	511.22	E	1769.71	1751.70	1752.68	885.35	16
10	1150.48	1132.47	1133.45	575.74	E	1640.66	1622.65	1623.64	820.83	15
11	1279.53	1261.51	1262.49	640.26	E	1511.62	1493.61	1494.59	756.31	14
12	1394.53	1376.54	1377.52	697.78	D	1382.58	1364.57	1365.55	691.79	13
13	1481.58	1463.57	1464.55	741.29	S	1267.55	1249.54	1250.52	634.28	12
14	1538.60	1520.59	1521.57	769.80	G	1180.52	1162.51	1163.49	590.76	11
15	1625.63	1607.62	1608.61	813.32	S	1123.50	1105.49	1106.47	562.22	10
16	1696.67	1678.66	1679.64	848.84	A	1036.47	1018.46	1019.44	518.73	9
17	1767.71	1749.70	1750.68	884.35	A	965.43	947.42	948.40	483.21	8
18	1895.77	1877.76	1878.74	948.40	Q	894.39	876.38	877.36	447.70	7
19	2008.85	1990.84	1991.82	1004.92	L	766.33	748.32	749.31	383.67	6
20	2065.87	2047.86	2048.84	1033.44	G	653.25	635.24	636.23	327.12	5
21	2212.91	2194.90	2195.88	1106.95	M(+15.99)	596.23	578.22	579.20	298.61	4
22	2372.94	2354.93	2355.91	1186.97	C(+57.02)	449.19	431.18	432.17	225.10	3
23	2486.98	2468.97	2469.95	1243.99	N	289.16	271.14	272.13	145.06	2
24					R	175.12	157.11	158.09	88.06	1

#	Immonium	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	86.10	114.09	96.08	97.06	57.55	L					18
2	86.10	227.18	209.17	210.15	114.09	L	1886.77	1868.76	1869.75	943.89	17
3	60.04	314.21	296.20	297.18	157.60	S	1773.69	1755.68	1756.66	887.34	16
4	70.07	411.26	393.25	394.23	206.13	Р	1686.67	1668.65	1669.63	843.83	15
5	101.07	539.31	521.31	522.29	270.16	Q	1589.60	1571.59	1572.58	795.30	14
6	104.05	670.36	652.35	653.33	335.68	M	1461.54	1443.53	1444.52	731.27	13
7	140.01	837.36	819.35	820.33	419.18	S(+79.97)	1330.51	1312.49	1313.48	665.75	12
8	30.03	894.38	876.37	877.35	447.69	G	1163.50	1145.48	1146.48	582.25	11
9	102.06	1023.42	1005.41	1006.40	512.21	E	1106.49	1088.47	1089.46	553.74	10
10	102.06	1152.46	1134.45	1135.44	576.73	E	977.45	959.44	960.42	489.22	9
11	102.06	1281.51	1263.50	1264.48	641.25	E	848.40	830.40	831.37	424.70	8
12	88.04	1396.53	1378.52	1379.51	698.77	D	719.36	701.35	702.33	360.18	7
13	60.04	1483.57	1465.56	1466.54	742.31	S	604.33	586.32	587.30	302.67	6
14	88.04	1598.59	1580.58	1581.57	799.80	D	517.30	499.29	500.27	259.15	5
15	86.10	1711.68	1693.67	1694.65	856.34	L	402.27	384.26	385.24	201.64	4
16	44.05	1782.71	1764.70	1765.69	891.86	A	289.19	271.18	272.16	145.09	3
17	44.05	1853.75	1835.74	1836.72	927.38	A	218.15	200.14	201.12	109.57	2
18	101.11	1		1		K	147.11	129.10	130.09	74.06	1
Error	0.03			• • •	• •		•	•			0.03
	-0.03		500)		1000		150	00		-0.03 m/z

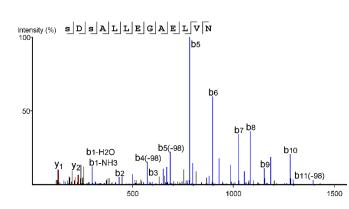
#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	317.20	299.19	300.18	159.10	S(+229.16)					18
2	374.22	356.21	357.20	187.61	G	1890.70	1872.69	1873.67	945.85	17
3	503.27	485.26	486.24	252.13	E	1833.68	1815.67	1816.65	917.34	16
4	632.31	614.30	615.28	316.65	E	1704.64	1686.62	1687.61	852.82	15
5	761.35	743.34	744.33	381.18	E	1575.59	1557.58	1558.57	788.30	14
6	876.38	858.37	859.35	438.69	D	1446.55	1428.54	1429.52	723.78	13
7	1043.37	1025.36	1026.35	522.19	S(+79.97)	1331.52	1313.51	1314.50	666.26	12
8	1100.39	1082.39	1083.37	550.70	G	1164.52	1146.51	1147.51	582.76	11
9	1187.43	1169.42	1170.40	594.22	S	1107.50	1089.49	1090.48	554.25	10
10	1258.47	1240.45	1241.44	629.73	Α	1020.47	1002.46	1003.44	510.74	9
11	1329.50	1311.50	1312.48	665.25	Α	949.43	931.42	932.41	475.22	8
12	1457.56	1439.55	1440.54	729.28	Q	878.40	860.39	861.37	439.70	7
13	1570.65	1552.64	1553.62	785.83	L	750.34	732.32	733.30	375.67	6
14	1627.65	1609.66	1610.64	814.33	G	637.25	619.24	620.23	319.13	5
15	1758.71	1740.70	1741.68	879.85	М	580.23	562.22	563.21	290.62	4
16	1918.74	1900.73	1901.71	959.87	C(+57.02)	449.19	431.18	432.17	225.10	3
17	2032.78	2014.77	2015.76	1016.89	N	289.16	271.14	272.13	145.08	2
18					R	175.12	157.11	158.09	88.06	1
Error	0.03	- 1-		. ų			• •	•		
	-0.03		500		1000		1500		2000	





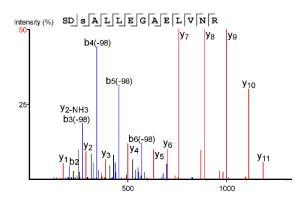


S2116-phospho, Htt from mouse brain



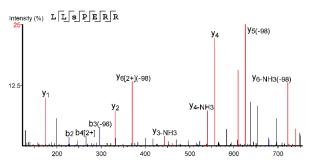
#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	317.20	299.19	300.16	159.09	S(+229.16)					13
2	432.23	414.22	415.20	216.61	D	1310.59	1292.58	1293.56	655.79	12
3	599.23	581.22	582.20	300.11	S(+79.97)	1195.56	1177.55	1178.53	598.28	11
4	670.26	652.25	653.24	335.63	A	1028.56	1010.55	1011.54	514.78	10
5	783.35	765.34	766.32	392.17	L	957.53	939.51	940.50	479.26	9
6	896.43	878.44	879.41	448.72	L	844.44	826.43	827.41	422.72	8
7	1025.47	1007.46	1008.45	513.24	E	731.36	713.35	714.33	366.18	7
8	1082.50	1064.49	1065.49	541.75	G	602.31	584.30	585.29	301.66	6
9	1153.53	1135.52	1136.51	577.27	A	545.29	527.28	528.27	273.15	5
10	1282.58	1264.56	1265.57	641.79	E	474.26	456.25	457.23	237.63	4
11	1395.66	1377.65	1378.63	698.33	L	345.21	327.20	328.19	173.11	3
12	1494.73	1476.72	1477.70	747.86	V	232.13	214.12	215.10	116.56	2
13					N	133.06	115.05	116.03	67.03	1
Error (da)	0.03	· · .		•					:	•
	-0.03			500		,	1000		,	

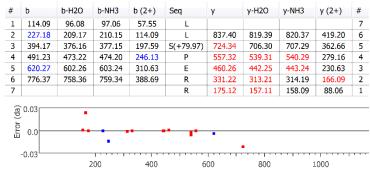
S2116-phospho, hu Htt from HEK293



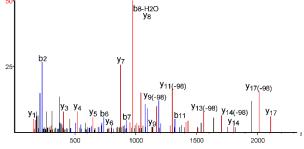
#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	88.04	70.03	71.01	44.52	S					14
2	203.07	185.06	186.04	102.03	D	1466.69	1448.68	1449.66	733.84	13
3	370.06	352.05	353.04	185.53	S(+79.97)	1351.66	1333.65	1334.63	676.33	12
4	441.10	423.09	424.08	221.05	A	1184.66	1166.65	1167.64	592.83	11
5	554.19	536.17	537.16	277.59	L	1113.62	1095.61	1096.61	557.31	10
6	667.27	649.26	650.24	334.14	L	1000.54	982.53	983.52	500.77	9
7	796.31	778.30	779.29	398.66	E	887.46	869.44	870.44	444.23	8
8	853.33	835.32	836.31	427.17	G	758.41	740.40	741.39	379.71	7
9	924.37	906.36	907.34	462.69	A	701.39	683.38	684.37	351.20	6
10	1053.41	1035.40	1036.39	527.21	E	630.36	612.35	613.32	315.68	5
11	1166.50	1148.49	1149.47	583.75	L	501.31	483.30	484.29	251.16	4
12	1265.57	1247.56	1248.54	633.28	V	388.23	370.22	371.19	194.62	3
13	1379.61	1361.60	1362.58	690.30	N	289.16	271.15	272.13	145.08	2
14					R	175.12	157.11	158.09	88.06	1
Error	0.03			500	·	:	1000			1500



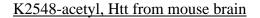


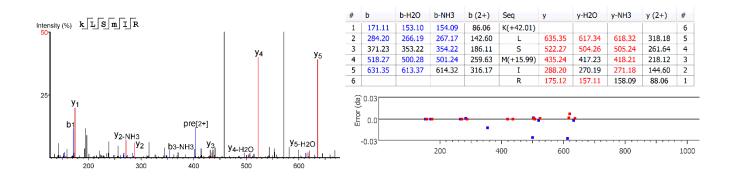


S2489-phospho, Htt from mouse brain

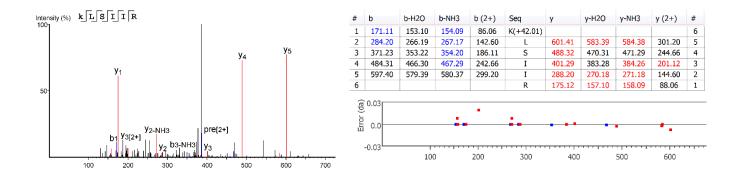


#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	102.06	84.04	85.03	51.53	Т					34
2	230.11	212.10	213.09	115.56	Q	3926.79	3908.78	3909.77	1963.90	33
3	377.18	359.17	360.16	189.09	F	3798.73	3780.72	3781.71	1899.87	32
4	506.22	488.21	489.20	253.61	E	3651.67	3633.66	3634.64	1826.33	31
5	635.26	617.25	618.24	318.13	E	3522.62	3504.61	3505.60	1761.81	30
6	736.31	718.30	719.29	368.66	Т	3393.58	3375.57	3376.55	1697.29	29
7	922.38	904.38	905.38	461.70	w	3292.53	3274.52	3275.51	1646.77	28
8	993.43	975.42	976.40	497.22	Α	3106.45	3088.44	3089.43	1553.73	27
9	1094.47	1076.47	1077.46	547.74	Т	3035.42	3017.41	3018.39	1518.21	26
10	1207.56	1189.56	1190.55	604.28	L	2934.37	2916.36	2917.34	1467.68	25
11	1320.63	1302.64	1303.62	660.82	L	2821.28	2803.27	2804.26	1411.14	24
12	1377.67	1359.66	1360.62	689.33	G	2708.20	2690.19	2691.17	1354.60	23
13	1476.74	1458.73	1459.71	738.87	V	2651.18	2633.17	2634.15	1326.09	22
14	1589.82	1571.81	1572.79	795.41	L	2552.11	2534.10	2535.08	1276.56	21
15	1688.89	1670.88	1671.86	844.94	v	2439.03	2421.02	2422.00	1220.01	20
16	1789.94	1771.93	1772.91	895.47	Т	2339.96	2321.95	2322.93	1170.48	19
17	1918.00	1899.99	1900.97	959.50	Q	2238.91	2220.90	2221.88	1119.96	18
18	2015.05	1997.04	1998.02	1008.02	P	2110.84	2092.84	2093.82	1055.93	17
19	2128.13	2110.12	2111.11	1064.57	L	2013.80	1995.79	1996.77	1007.40	16
20	2227.20	2209.19	2210.17	1114.10	v	1900.72	1882.70	1883.69	950.86	15
21	2374.24	2356.23	2357.21	1187.62	M(+15.99)	1801.65	1783.64	1784.62	901.32	14
22	2503.28	2485.27	2486.25	1252.14	E	1654.61	1636.60	1637.58	827.81	13
23	2631.34	2613.33	2614.31	1316.17	Q	1525.57	1507.56	1508.51	763.28	12
24	2760.38	2742.37	2743.35	1380.69	E	1397.51	1379.50	1380.48	699.26	11
25	2889.42	2871.41	2872.40	1445.21	Е	1268.47	1250.46	1251.44	634.73	10
26	3056.42	3038.41	3039.39	1528.71	S(+79.97)	1139.41	1121.41	1122.40	570.21	9
27	3153.47	3135.46	3136.45	1577.24	Р	972.42	954.41	955.40	486.71	8
28	3250.53	3232.52	3233.50	1625.76	Р	875.37	857.36	858.35	438.19	7
29	3379.57	3361.56	3362.54	1690.28	E	778.31	760.31	761.29	389.66	6
30	3508.61	3490.60	3491.59	1754.81	E	649.28	631.27	632.25	325.14	5
31	3623.64	3605.63	3606.61	1812.32	D	520.23	502.23	503.21	260.62	4
32	3724.69	3706.68	3707.66	1862.84	т	405.21	387.20	388.18	203.10	3
33	3853.73	3835.72	3836.70	1927.36	E	304.16	286.15	287.13	152.58	2
34					R	175.12	157.10	158.09	88.06	1
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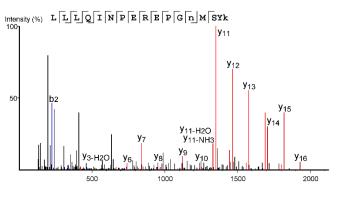




K2548-acetyl, Htt from human brain

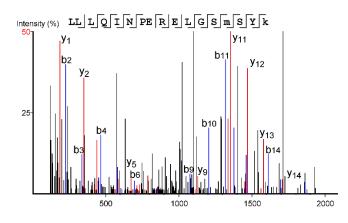


K2615-acetyl, Htt from mouse brain



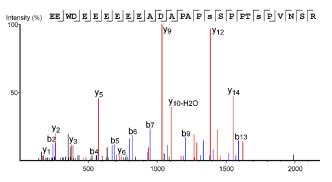
#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	114.09	96.08	97.06	57.55	L	1				17
2	227.18	209.17	210.15	114.09	L	1931.98	1913.94	1914.93	966.49	16
3	340.26	322.25	323.23	170.63	L	1818.88	1800.86	1801.87	909.93	15
4	468.32	450.31	451.29	234.66	Q	1705.80	1687.77	1688.78	853.39	14
5	581.40	563.39	564.38	291.20	I	1577.75	1559.72	1560.71	789.36	13
6	695.45	677.43	678.42	348.22	N	1464.66	1446.65	1447.64	732.82	12
7	792.50	774.49	775.47	396.75	Р	1350.61	1332.60	1333.59	675.80	11
8	921.54	903.53	904.51	461.27	E	1253.57	1235.54	1236.54	627.27	10
9	1077.64	1059.63	1060.61	539.32	R	1124.52	1106.49	1107.45	562.75	9
10	1206.68	1188.67	1189.66	603.84	E	968.42	950.40	951.38	484.70	8
11	1303.74	1285.73	1286.71	652.37	Р	839.37	821.36	822.33	420.19	7
12	1360.76	1342.75	1343.73	680.88	G	742.32	724.30	725.28	371.65	6
13	1475.79	1457.78	1458.76	738.39	N(+.98)	685.30	667.28	668.26	343.14	5
14	1606.83	1588.82	1589.80	803.91	M	570.26	552.25	553.23	285.63	4
15	1693.86	1675.85	1676.83	847.43	S	439.22	421.21	422.19	220.11	3
16	1856.92	1838.91	1839.89	928.96	Y	352.19	334.18	335.16	176.59	2
17					K(+42.01)	189.12	171.11	172.10	95.06	1

K2615-acetyl, hu Htt from HEK293



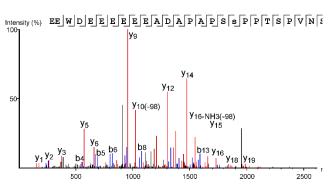
#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	114.09	96.08	97.06	57.55	L					1
2	227.18	209.17	210.15	114.09	L	1935.98	1917.97	1918.96	968.49	1
3	340.26	322.25	323.23	170.63	L	1822.90	1804.89	1805.87	911.95	1
4	468.32	450.31	451.29	234.66	Q	1709.81	1691.81	1692.79	855.41	1
5	581.40	563.39	564.38	291.20	I	1581.75	1563.74	1564.73	791.39	1
6	695.45	677.43	678.42	348.22	N	1468.67	1450.66	1451.65	734.84	1
7	792.50	774.49	775.47	396.75	Р	1354.63	1336.62	1337.61	677.82	1
8	921.54	903.53	904.51	461.27	E	1257.58	1239.57	1240.55	629.29	1
9	1077.64	1059.63	1060.61	539.32	R	1128.53	1110.54	1111.51	564.77	9
10	1206.68	1188.67	1189.66	603.84	E	972.43	954.42	955.41	486.72	1
11	1319.77	1301.76	1302.74	660.38	L	843.39	825.38	826.36	422.20	
12	1376.79	1358.78	1359.76	688.90	G	730.31	712.29	713.28	365.65	(
13	1463.82	1445.81	1446.80	732.41	S	673.29	655.28	656.28	337.14	1
14	1610.85	1592.85	1593.83	805.93	M(+15.99)	586.25	568.24	569.23	293.63	4
15	1697.89	1679.88	1680.86	849.43	S	439.22	421.21	422.19	220.11	
16	1860.95	1842.94	1843.93	930.98	Y	352.19	334.18	335.16	176.59	1
17		1			K(+42.01)	189.12	171.11	172.10	95.06	

S2652-phospho, hu Htt from HEK293

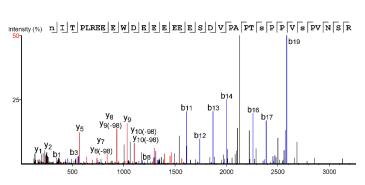


2 259.09 241.08 242.07 130.05 E 3015.15 2997.13 2998.12 1508.07 3 445.17 427.16 428.15 223.09 W 2866.10 2866.09 2869.00 1443.55 4 560.20 542.19 543.17 280.60 D 2700.02 2682.01 2665.09 1255.79 1293.00 6 818.28 800.27 801.26 409.64 E 2455.95 2437.94 2438.93 1228.48 7 947.32 929.32 930.30 474.16 E 2305.91 2308.90 2309.88 163.66 8 1076.36 1058.36 1059.34 538.68 E 2179.86 2180.84 1099.43 9 1205.41 1187.41 1188.39 603.21 E 2068.83 2050.82 2051.80 1034.91 13334.46 1316.43 1317.43 667.73 E 1939.76 1921.77 1922.76 970.39 15	2 259.09 241.08 242.07 130.05 E 3015.15 2997.13 2998.12 1508.07 266 3 445.17 427.16 428.15 223.09 W 2866.10 2868.09 2869.08 1435.55 25 4 560.20 542.19 543.17 280.60 D 2700.02 2868.09 2869.08 1435.55 25 5 689.24 671.23 672.21 345.12 E 2255.00 256.99 2567.97 1293.00 43 5 681.28 800.27 801.26 409.64 E 2455.95 2437.94 2438.93 1228.48 22 7 947.32 929.32 903.00 474.16 E 2367.97 1293.08 1163.66 11 8 1076.36 1058.36 1059.34 538.68 E 2197.87 127.79 1905.84 1034.91 19 1 1405.49 1387.48 1384.46 703.24 A <t< th=""><th>#</th><th>b</th><th>b-H2O</th><th>b-NH3</th><th>b (2+)</th><th>Seq</th><th>у</th><th>y-H2O</th><th>y-NH3</th><th>y (2+)</th><th>#</th></t<>	#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
3 445.17 427.16 428.15 223.09 W 2886.10 2868.09 2869.08 1443.55 4 560.20 542.19 543.17 280.60 D 2700.02 2682.01 2683.00 1350.51 5 689.24 671.23 672.21 345.12 E 2585.00 2566.99 2567.97 1293.00 6 818.28 800.27 801.26 409.64 E 2455.55 2437.94 2438.93 1228.48 7 947.32 292.32 930.30 474.16 E 2365.01 2308.90 2309.88 103.46 1076.36 1058.36 1059.34 538.68 E 2197.87 2179.86 2180.84 1099.43 9 1205.41 1187.41 1188.39 603.21 E 2068.83 2050.82 2051.80 1034.91 12 1502.51 1502.49 1502.49 707.6 D 1797.07 1212.69 1727.69 1721.69 1727.26 870.	3 445.17 427.16 428.15 223.09 W 2886.10 2868.09 2869.08 1443.55 25 4 560.20 542.19 543.17 280.60 D 2700.02 2682.01 2683.00 1350.1 24 5 689.24 671.23 672.21 345.12 E 2585.00 2566.99 2567.97 1293.00 23 6 18.28 800.27 801.26 409.64 E 2455.95 2437.94 2438.93 1228.48 22 7 947.32 929.32 930.30 474.16 E 2326.91 2308.90 2309.88 1163.66 21 8 1076.36 1058.36 1059.34 538.68 E 2197.87 2179.86 2180.84 1099.43 20 9 1205.41 1187.41 1188.39 603.21 E 2068.83 2050.82 2051.80 1034.91 19 0 1334.46 1316.43 1317.43 667.73 E 1939.78 1921.77 1922.76 970.39 18 1 405.49 1387.48 1388.46 703.24 A 1810.74 1792.77 1792.76 870.37 17 1 520.51 1502.51 1503.49 700.76 D 1739.70 1721.69 1722.68 870.35 17 1 520.51 1502.51 1503.49 700.76 D 1535.64 1535.63 1536.61 777.32 14 5 1759.65 1741.64 1742.62 880.32 A 1456.59 1335.86 1535.661 777.32 14 5 1759.65 1741.64 1742.62 880.32 A 1456.59 1335.85 1439.56 728.77 12 5 1729.65 1204.67 102.35 5(+79.97) 1285.05 1270.49 1271.47 644.75 11 8 2110.73 2092.72 2093.70 1055.86 S 1121.50 1103.49 1104.47 561.25 10 0 2207.72 2037.70 2085.69 206.67 1012.35 5(+79.97) 1285.05 1270.49 1274.47 644.75 11 8 2110.73 2092.72 2093.70 1055.86 S 1121.50 1103.49 1104.47 561.25 10 0 2207.72 2187.75 1354 1573.54 1524.54 P 937.41 919.40 920.39 469.21 8 11 2405.88 2387.87 238.85 1203.44 T 840.36 P 323.33 4206.8 7 2 572.88 256.87 235.85 1203.44 T 840.36 822.35 823.33 420.68 7 2 572.88 256.87 235.85 1203.44 T 840.36 822.35 823.33 420.68 7 2 572.88 256.87 235.85 1203.44 T 840.59 137.13 0722.29 370.16 8 11 2405.8 2387.87 238.86 1203.44 T 840.59 135.18 359.11 38.10 333 2 669.93 2651.92 265.21 1335.45 P 572.31 554.30 555.29 286.66 5 3 2669.93 2651.92 2652.91 1335.45 P 572.31 554.30 555.29 286.66 5 3 2669.93 2651.92 2652.91 1335.45 P 572.31 554.30 555.29 286.66 5 3 2669.93 2651.92 2652.91 1335.45 P 572.31 554.30 555.29 286.66 5 3 2669.93 2651.92 2652.91 335.45 P 572.31 554.30 555.29 286.66 5 3 269.00 2750.99 2751.97 1385.00 V 475.26 457.25 458.24 2331 34 5 2883.04 286.60 21442.02 N 376.19 358.18 359.11 388.00 3	1	130.05	112.04	113.02	65.53	E					27
4 560.20 542.19 543.17 280.60 D 2700.02 2682.01 2683.00 1350.51 5 689.24 671.23 672.21 345.12 E 2585.00 2566.99 2567.97 1293.00 6 818.28 800.27 801.26 409.64 E 2455.95 237.94 2438.93 1228.48 7 947.32 292.32 930.30 474.16 E 2326.91 2308.90 2309.88 1163.96 1076.36 1058.36 1059.34 538.66 E 2197.87 2179.86 2180.84 1034.91 134.45 1316.43 1317.43 667.73 E 1939.76 1921.77 1922.76 970.39 13 1591.55 1573.54 1574.53 796.28 A 1624.66 1606.67 1607.65 812.84 14 1688.61 1670.60 1671.58 844.80 P 1535.63 1536.61 777.32 1591.55 1731.44 13	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	2	259.09	241.08	242.07	130.05	E	3015.15	2997.13	2998.12	1508.07	26
5 689.24 671.23 672.21 345.12 E 258.00 256.99 256.797 1293.00 6 818.28 800.27 801.26 409.64 E 2455.95 243.79 1228.48 7 947.32 929.32 930.30 474.16 E 2326.91 2308.90 230.9.88 163.66 8 1076.36 1058.36 1059.34 538.68 E 2197.87 2179.62 2180.84 1099.43 9 1205.41 1187.41 1188.99 603.21 E 2068.83 2050.82 2051.80 1034.91 11 1405.49 1387.46 1317.43 667.73 E 139.76 192.77 1792.73 1793.71 905.87 12 150.51 1503.54 1574.53 796.28 A 162.66 1607.66 167.73 E 135.64 1535.64 1536.61 777.72 15 1575.65 1741.64 1742.62 880.32 A 1456.59	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	3	445.17	427.16	428.15	223.09	W	2886.10	2868.09	2869.08	1443.55	25
6 818.28 800.27 801.26 409.64 E 2455.95 2437.94 2438.93 1228.48 7 947.32 929.32 930.30 474.16 E 2365.91 2308.90 2309.88 1613.96 8 1076.36 1058.36 1059.34 538.68 E 2197.87 2179.86 2180.84 1099.43 9 1205.41 1187.41 1183.39 603.21 E 2068.83 2050.82 2051.80 1034.91 10 1334.46 1316.43 1317.43 667.73 E 1939.76 1921.77 1922.76 970.39 11 1405.49 1387.48 1388.46 703.24 A 1810.74 792.73 1793.71 905.87 1252.05 1502.51 1503.49 760.76 D 1739.70 1721.69 1722.68 870.35 15 1595.5 1574.53 796.28 A 1624.68 1606.67 1607.65 812.84 16 1856.70<	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	4	560.20	542.19	543.17	280.60	D	2700.02	2682.01	2683.00	1350.51	24
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	5	689.24	671.23	672.21	345.12	E	2585.00	2566.99	2567.97	1293.00	23
8 1076.36 1058.36 1059.34 538.68 E 2197.87 2179.86 2180.84 1099.43 9 1205.41 1187.41 1188.39 603.21 E 2068.83 205.02 205.180 1034.911 10 1334.46 1316.43 1317.43 667.73 E 1939.78 1921.77 1922.76 970.39 11 1405.49 1387.48 1388.46 703.24 A 1810.74 1792.73 1793.71 1925.75 12 1520.51 1503.54 1574.53 706.26 A 1624.66 1600.67 1607.66 128.124 1458.61 1670.60 1671.58 844.80 P 1535.63 1535.63 1535.63 1538.64 773.27 15 1575.65 1741.64 1742.62 880.32 A 1456.59 1438.58 1439.56 728.79 16 1856.70 1383.64 1039.75 192.77 192.70 1055.6 S 1103.49 1104.47	8 1076.36 1058.36 1059.34 538.68 E 2197.87 2179.86 2180.84 1099.43 20 9 1205.41 1187.41 1188.39 603.21 E 2068.82 2050.82 2051.80 1033.41 19 0 1334.46 1316.43 1317.43 667.73 E 1939.78 1921.77 1922.76 970.39 18 1 1405.49 1387.48 1384.46 703.24 A 1810.74 1792.73 1793.71 905.87 16 1 1505.49 1503.49 760.76 D 1739.70 1721.69 1722.68 870.35 16 3 1591.55 1573.54 1574.53 746.40 P 1553.64 1536.61 777.32 14 14 5 1759.65 1741.64 1742.62 880.32 A 1456.59 1438.58 1439.56 728.79 13 6 1856.70 1838.69 1203.74 101.35 5(47.99	6	818.28	800.27	801.26	409.64	E	2455.95	2437.94	2438.93	1228.48	22
9 1205.41 1187.41 1188.39 603.21 E 2068.83 2050.82 2051.80 1034.91 10 1334.46 1317.43 667.73 E 1997.77 1922.76 970.39 11 1405.49 1387.48 1388.46 703.24 A 1810.74 1792.73 1793.71 905.87 12 1520.51 1503.49 760.76 D 1739.70 1721.69 1722.68 870.35 13 1591.55 1573.54 1574.53 760.76 D 1739.70 1438.58 143.58 143.58 143.58 143.55 15 1575.55 1574.54 1574.53 762.28 A 1553.64 1535.61 1536.61 777.72 15 1759.65 1741.64 1742.62 880.32 A 1435.55 1367.54 1368.52 693.27 16 1856.70 1838.69 1037.97 1058.66 S 1121.50 1103.49 104.47 561.25 17<	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	7	947.32	929.32	930.30	474.16	E	2326.91	2308.90	2309.88	1163.96	21
10 1334.46 1316.43 1317.43 667.73 E 1939.78 1921.77 1922.76 970.39 11 1405.49 1387.44 1388.46 703.24 A 1810.74 1792.73 1793.71 905.87 12 1520.51 1502.51 1503.49 706.76 D 1739.70 1721.69 1722.68 870.35 13 1591.55 1573.54 1574.53 796.28 A 1624.68 1606.67 1607.65 812.84 14 1688.61 1670.60 1671.58 844.80 P 1535.64 1535.61 1536.61 777.32 15 1759.65 1741.64 1742.62 880.32 A 1456.59 1438.58 1439.56 728.79 16 1856.70 1838.69 1203.76 1013.49 P 1336.54 1535.64 1556.61 761.27 17 2023.70 2092.72 2093.70 1058.66 S 112.50 1103.49 104.47 516.25 </td <td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td> <td>8</td> <td>1076.36</td> <td>1058.36</td> <td>1059.34</td> <td>538.68</td> <td>E</td> <td>2197.87</td> <td>2179.86</td> <td>2180.84</td> <td>1099.43</td> <td>20</td>	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	8	1076.36	1058.36	1059.34	538.68	E	2197.87	2179.86	2180.84	1099.43	20
11 1405.49 1387.48 1388.46 703.24 A 1810.74 1792.73 1793.71 905.87 12 1520.51 1502.51 1503.49 760.76 D 1739.70 1721.69 1722.68 870.35 13 1591.55 1573.54 1574.53 796.28 A 1624.68 1606.67 1607.65 812.84 14 1688.61 1670.60 1671.58 844.80 P 1535.63 1535.23 1635.27 1385.25 1245.74 1644.75 164.75	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	9	1205.41	1187.41	1188.39	603.21	E	2068.83	2050.82	2051.80	1034.91	19
12 1520.51 1502.51 1503.49 760.76 D 1739.70 1721.69 1722.68 870.35 13 1591.55 1573.54 1574.53 796.28 A 1624.68 1600.67 1607.65 812.84 14 1688.61 1670.60 1671.58 844.80 P 1553.64 1535.63 1536.61 777.32 15 1759.65 1741.64 1742.62 880.32 A 1456.59 1438.58 1439.56 728.79 16 1856.70 1838.69 1839.67 928.85 P 1385.55 1367.54 1368.52 693.27 17 2023.70 2092.72 2093.70 1075.86 S 1103.49 1104.47 561.25 18 2110.73 2190.75 1104.39 P 1034.46 1016.46 1017.44 517.73 12 2405.88 2287.81 1152.92 P 937.41 919.40 920.39 469.21 22 2572.88 255.8	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	10	1334.46	1316.43	1317.43	667.73	E	1939.78	1921.77	1922.76	970.39	18
13 1591.55 1573.54 1574.53 796.28 A 1624.68 1606.67 1607.65 812.84 14 1688.61 1670.60 1671.58 844.80 P 1553.64 1533.63 1536.61 777.32 15 1759.65 1741.64 1742.62 880.32 A 1456.59 1438.58 1439.56 728.79 16 1856.70 1838.69 1839.67 928.85 P 1385.55 1367.54 1365.52 693.27 17 2023.70 2005.69 2006.67 1012.35 \$(+79.97) 128.50 1270.49 1271.47 644.75 18 210.73 2092.72 2093.70 1055.86 \$ 112.150 1016.49 1014.47 517.23 19 2207.78 2189.77 120.85 122.48 469.21 240.88 223.84 120.44 T 840.35 822.35 823.34 469.21 12 2405.88 2384.85 123.84.4 T 840.35	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	11	1405.49	1387.48	1388.46	703.24	A	1810.74	1792.73	1793.71	905.87	17
14 1688.61 1670.60 1671.58 844.80 P 1553.64 1535.63 1536.61 777.32 15 1759.65 1741.64 1742.62 880.32 A 1456.59 1438.58 1439.56 728.79 15 1856.07 1838.69 1839.67 928.85 P 1385.55 1675.41 586.52 693.27 17 2023.70 2005.69 2006.67 1012.35 5(+79.97) 1288.50 1270.49 1271.47 644.75 18 210.73 2028.72 2093.70 1055.86 S 1121.50 1103.49 1016.46 151.74 151.74 19 220.78 219.77 120.75 1104.99 P 937.41 919.40 920.39 469.21 12 2405.88 2388.85 1235.45 P 937.41 919.40 920.39 469.21 12 2405.88 255.85 126.84 5(+79.97) 723.31 721.30 722.29 370.16	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	12	1520.51	1502.51	1503.49	760.76	D	1739.70	1721.69	1722.68	870.35	16
15 1759.65 1741.64 1742.62 880.32 A 1456.59 1438.58 1439.56 728.79 16 1856.70 1838.69 1839.67 928.85 P 1385.55 1367.54 1368.52 693.27 17 2023.70 2005.69 2006.67 1012.35 5(+79.97) 1288.50 1270.49 1271.47 644.75 18 210.73 2092.72 2093.70 1055.86 S 1103.49 1101.47 561.25 19 2207.78 2189.77 2190.75 1104.39 P 1034.46 1016.46 1017.44 517.73 20 2404.83 2287.81 1152.92 P 937.41 919.40 920.33 460.61 21 2405.88 2387.87 2388.85 1203.44 T 840.35 822.35 823.33 420.68 22 2757.88 2558.87 1286.49 5(+79.97) 739.31 721.30 722.29 370.16 22 2669.93	5 1759.65 1741.64 1742.62 880.32 A 1456.59 1438.58 1439.56 728.79 13 6 1856.70 1838.69 1839.67 928.85 P 1385.55 1367.54 1365.52 693.27 12 7 2023.70 2005.69 2006.67 1012.35 5(+79.97) 1288.50 127.04 1271.47 644.75 11 9 2207.78 2189.77 2190.75 1104.39 P 1034.46 1016.46 1017.44 517.73 99 0 2304.83 2286.82 2287.81 115.29 P 937.41 919.40 920.33 420.58 12 12<405.83	13	1591.55	1573.54	1574.53	796.28	A	1624.68	1606.67	1607.65	812.84	15
16 1856.70 1838.69 1839.67 928.85 P 1385.55 1367.54 1368.52 693.27 12 2023.70 2005.66 2006.67 1012.35 5(7+9.97) 128.50 1270.49 1271.47 644.75 18 210.73 2092.72 2093.70 1055.86 S 1121.50 1013.49 1014.47 561.25 19 2007.78 2189.77 2190.75 1104.39 P 1034.46 1016.46 1017.47 51.73 19 2047.88 2287.81 1152.92 P 997.41 919.40 920.39 469.21 21 2405.88 2287.81 1236.94 T 840.36 822.05 823.33 420.68 22 527.88 255.85 1236.94 T 840.36 822.05 823.33 420.68 22 526.93 2651.92 2652.91 1335.45 P 572.31 551.30 555.29 286.06 22 2869.03 2751.97<	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	14	1688.61	1670.60	1671.58	844.80	Р	1553.64	1535.63	1536.61	777.32	14
17 2023.70 2005.69 2006.67 1012.35 S(+79.97) 1288.50 1270.49 1271.47 644.75 18 2110.73 2092.72 2093.70 1055.86 S 1121.50 1103.49 1104.47 561.25 19 2007.78 2189.77 2190.75 1104.39 P 1034.46 1016.46 1017.44 517.73 20 2304.83 2286.82 228.78 1152.92 P 937.41 919.40 920.39 460.21 21 2405.88 2387.87 2388.45 1203.44 T 840.36 822.35 823.33 420.68 22 2572.88 2554.87 2555.85 1286.94 S(+79.97) 739.31 721.30 722.29 370.16 23 2659.93 2651.92 2652.91 1335.45 P 572.31 554.30 555.29 286.66 24 2769.09 2751.97 1385.00 V 475.26 457.23 4238.13 25	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	15	1759.65	1741.64	1742.62	880.32	A	1456.59	1438.58	1439.56	728.79	13
18 2110.73 2092.72 2093.70 1055.86 S 1121.50 1103.49 1104.47 561.25 19 2207.78 2189.77 2190.75 1104.39 P 1034.46 1016.46 1017.44 517.73 20 2304.83 2286.82 2287.81 1152.92 P 937.41 919.40 920.39 460.21 21 2405.88 2387.87 2388.85 1203.44 T 840.36 822.35 823.33 420.68 22 2572.88 2554.87 2555.85 1286.94 S(+79.97) 739.31 721.30 722.29 370.16 23 2669.93 2651.92 2652.91 1335.45 P 572.31 554.30 555.29 286.66 24 2769.00 2750.99 2751.97 1385.00 V 475.26 457.25 458.24 323.13 25 2883.04 2865.02 1442.02 N 376.19 358.18 359.17 188.60 25	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	16	1856.70	1838.69	1839.67	928.85	Р	1385.55	1367.54	1368.52	693.27	12
19 2207.78 2189.77 2190.75 1104.39 P 1034.46 1016.46 1017.44 517.73 20 2304.83 2286.82 2287.81 1152.92 P 937.41 919.40 920.39 460.21 21 2405.88 2387.87 2388.85 1203.44 T 840.36 822.35 823.33 420.68 22 2572.88 2555.85 1286.94 S(+997) 739.31 721.30 722.29 370.16 22 2670.90 2750.99 275.19 1335.45 P 572.31 554.30 555.29 286.66 2470400 2760.90 2751.97 1385.00 V 475.26 457.25 458.24 238.13 25 2883.04 2865.03 2462.02 N 376.19 358.18 359.17 188.60 26 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58	9 2207.78 2189.77 2190.75 1104.39 P 1034.46 1016.46 1017.44 517.73 9 10 2304.83 2286.82 2287.81 1152.92 P 937.41 919.40 920.39 469.21 8 11 2405.88 2387.87 238.85 1203.44 T 840.36 822.35 823.33 420.68 7 2 2572.88 2554.87 2555.85 1286.94 5(+79.97) 739.31 721.30 722.29 370.16 6 3 2669.93 2651.92 2652.91 1335.45 P 572.31 554.30 555.29 286.66 5 4 2769.00 2750.99 2751.97 1385.00 V 475.26 457.25 458.24 2381.3 4 5 2883.04 2865.03 2866.02 1442.02 N 376.19 358.18 359.17 188.60 3 16 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58 2 7 0 8 10 10 10 10 10 10 10 10 10 10 10 10 10	17	2023.70	2005.69	2006.67	1012.35	S(+79.97)	1288.50	1270.49	1271.47	644.75	11
20 2304.83 2286.82 2287.81 1152.92 P 937.41 919.40 920.39 469.21 12 4505.88 2387.87 2388.85 1203.44 T 840.36 822.35 823.33 420.68 22 2572.88 2554.87 2555.85 1263.64 Str.979.77 739.31 721.30 722.29 370.16 23 2669.93 2651.92 2652.91 1335.45 P 572.31 554.30 555.29 286.66 24 2769.00 2751.99 1355.00 V 475.26 457.25 458.24 238.13 25 2885.03 2866.02 1442.02 N 376.19 358.18 359.17 188.60 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	18	2110.73	2092.72	2093.70	1055.86	S	1121.50	1103.49	1104.47	561.25	10
21 2405.88 2387.87 2388.85 1203.44 T 840.36 822.35 823.33 420.68 22 2572.88 2554.87 2555.85 1286.94 S(+79.97) 739.31 721.30 722.29 370.16 23 2690.93 2651.92 2652.91 1335.45 P 572.31 554.30 555.29 286.66 24 2769.00 2750.99 2751.97 1385.00 V 475.25 457.25 458.24 238.13 25 2883.04 2865.03 2442.02 N 376.19 358.18 359.17 188.60 26 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	19	2207.78	2189.77	2190.75	1104.39	Р	1034.46	1016.46	1017.44	517.73	9
22 2572.88 2554.87 2555.85 1286.94 S(+79.97) 739.31 721.00 722.29 370.16 23 2669.93 2651.92 2552.91 1335.45 P 572.31 554.30 555.29 286.66 24 2769.00 2750.99 2751.97 1385.00 V 475.26 457.25 458.24 238.13 25 2883.04 2865.03 2866.02 1442.02 N 376.19 358.18 359.17 188.60 26 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58	12 2572.88 2554.87 2555.85 1286.94 S(+79.97) 739.31 721.30 722.29 370.16 6 3 2669.93 2651.92 2652.91 1335.45 P 572.31 554.30 555.29 286.66 5 4 2769.00 2750.99 2751.97 1385.00 V 475.26 457.25 458.24 238.13 4 5 2883.04 2865.03 1246.02 N 376.19 355.18 359.17 188.60 3 56 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58 2 7	20	2304.83	2286.82	2287.81	1152.92	Р	937.41	919.40	920.39	469.21	8
23 2669.93 2651.92 2652.91 1335.45 P 572.31 554.30 555.29 286.66 24 2769.00 2750.99 2751.97 1385.00 V 475.26 457.25 458.24 238.13 25 2883.04 2865.03 2866.02 1442.02 N 376.19 358.18 359.17 188.60 26 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58	3 2669.93 2651.92 2652.91 1335.45 P 572.31 554.30 555.29 286.66 5 4 2769.00 2750.99 2751.97 1385.00 V 475.26 457.25 458.24 238.13 4 5 2883.04 2865.03 2866.02 1442.02 N 376.19 358.18 359.17 188.60 3 6 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58 2 7 R 175.12 157.11 158.09 88.06 1	21	2405.88	2387.87	2388.85	1203.44	Т	840.36	822.35	823.33	420.68	7
24 2769.00 2751.99 2751.97 1385.00 V 475.26 457.25 458.24 238.13 25 2883.04 2865.03 2866.02 1442.02 N 376.19 358.18 359.17 188.60 26 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58	4 2769.00 275.0.99 2751.97 1385.00 V 475.26 457.25 458.24 238.13 4 45 2883.04 2865.03 2866.02 1442.02 N 376.19 358.18 359.17 188.60 3 6 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58 2 7 R 175.12 157.11 158.09 88.06 1	22	2572.88	2554.87	2555.85	1286.94	S(+79.97)	739.31	721.30	722.29	370.16	6
25 2883.04 2865.03 2866.02 1442.02 N 376.19 358.18 359.17 188.60 26 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58	55 2883.04 2865.03 2866.02 1442.02 N 376.19 358.18 359.17 188.60 3 6 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58 2 7 8 0.03 8 157.11 158.09 88.06 1	23	2669.93	2651.92	2652.91	1335.45	Р	572.31	554.30	555.29	286.66	5
26 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58	6 2970.08 2952.07 2953.05 1485.54 S 262.15 244.14 245.12 131.58 2 7	24	2769.00	2750.99	2751.97	1385.00	V	475.26	457.25	458.24	238.13	4
	7 R 175.12 157.11 158.09 88.06 1	25	2883.04	2865.03	2866.02	1442.02	N	376.19	358.18	359.17	188.60	3
27 R 175.12 157.11 158.09 88.06	ĝ 0.03	26	2970.08	2952.07	2953.05	1485.54	S	262.15	244.14	245.12	131.58	2
		27					R	175.12	157.11	158.09	88.06	1
(g) 0.03		26 27	2970.08	-			S	262.15	244.14	245.12	131.58	

S2653-phospho, hu Htt from HEK293

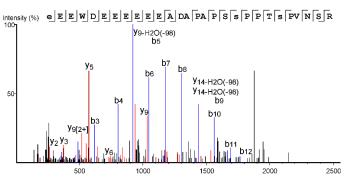


#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	130.05	112.04	113.02	65.53	E					27
2	259.09	241.08	242.07	130.05	E	2935.18	2917.17	2918.15	1468.09	26
3	445.17	427.16	428.15	223.09	W	2806.14	2788.13	2789.11	1403.57	25
4	560.20	542.19	543.17	280.60	D	2620.06	2602.05	2603.03	1310.53	24
5	689.24	671.23	672.21	345.12	Е	2505.03	2487.02	2488.00	1253.02	23
6	818.28	800.27	801.28	409.64	Е	2375.98	2357.98	2358.96	1188.49	22
7	947.33	929.31	930.30	474.16	Е	2246.94	2228.93	2229.92	1123.97	21
8	1076.37	1058.36	1059.34	538.68	E	2117.90	2099.88	2100.90	1059.45	20
9	1205.41	1187.40	1188.39	603.21	E	1988.86	1970.86	1971.83	994.93	19
10	1334.46	1316.44	1317.45	667.73	E	1859.83	1841.82	1842.80	930.41	18
11	1405.49	1387.48	1388.48	703.24	A	1730.77	1712.76	1713.76	865.89	17
12	1520.51	1502.51	1503.50	760.76	D	1659.74	1641.73	1642.72	830.37	16
13	1591.55	1573.55	1574.54	796.26	A	1544.71	1526.70	1527.70	772.86	15
14	1688.61	1670.60	1671.58	844.80	Р	1473.67	1455.65	1456.66	737.34	14
15	1759.65	1741.64	1742.64	880.32	Α	1376.62	1358.61	1359.59	688.81	13
16	1856.70	1838.69	1839.67	928.85	Р	1305.58	1287.57	1288.57	653.29	12
17	1943.73	1925.72	1926.70	972.37	S	1208.53	1190.52	1191.50	604.77	11
18	2110.73	2092.72	2093.70	1055.86	S(+79.97)	1121.50	1103.49	1104.47	561.25	10
19	2207.78	2189.77	2190.75	1104.39	P	954.50	936.49	937.48	477.75	9
20	2304.83	2286.82	2287.81	1152.92	Р	857.45	839.44	840.42	429.22	8
21	2405.88	2387.87	2388.85	1203.44	Т	760.40	742.38	743.37	380.70	7
22	2492.91	2474.90	2475.89	1246.96	S	659.35	641.34	642.32	330.17	6
23	2589.97	2571.96	2572.94	1295.48	Р	572.31	554.30	555.29	286.66	5
24	2689.04	2671.02	2672.01	1345.02	V	475.26	457.25	458.24	238.13	4
25	2803.08	2785.07	2786.05	1402.04	N	376.19	358.18	359.17	188.60	3
26	2890.11	2872.10	2873.08	1445.56	S	262.15	244.14	245.12	131.58	2
27					R	175.12	157.11	158.09	88.06	1
(da)	0.03									
Error				- i		100 C	1.4.4		14 C	
튭	0.0						() () () () () () () () () ()	1.1		
	0.00			•		- 1	10 A			
	-0.03		500		1000	15	00	200		
			500		1000	15	00	200	10	



	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
344.21	326.20	327.19	172.61	N(+229.16)					34
457.30	439.29	440.27	229.15	I	3909.66	3891.65	3892.64	1955.33	33
558.34	540.33	541.32	279.67	Т	3796.58	3778.57	3779.55	1898.79	32
655.40	637.39	638.37	328.20	Р	3695.53	3677.52	3678.50	1848.27	31
768.48	750.47	751.46	384.74	L	3598.48	3580.47	3581.45	1799.74	30
924.58	906.57	907.56	462.79	R	3485.39	3467.38	3468.37	1743.20	29
1053.63	1035.62	1036.60	527.31	E	3329.29	3311.28	3312.27	1665.15	28
1182.66	1164.66	1165.64	591.83	E	3200.25	3182.24	3183.22	1600.63	27
1311.71	1293.70	1294.68	656.36	E	3071.21	3053.20	3054.18	1536.10	26
1497.79	1479.78	1480.76	749.41	W	2942.17	2924.15	2925.14	1471.58	25
1612.81	1594.81	1595.79	806.91	D	2756.09	2738.08	2739.06	1378.54	24
1741.86	1723.85	1724.83	871.43	E	2641.06	2623.05	2624.03	1321.03	23
1870.89	1852.89	1853.89	935.95	E	2512.02	2494.01	2494.99	1256.51	22
1999.94	1981.92	1982.92	1000.47	E	2382.97	2364.96	2365.95	1191.99	21
2128.99	2110.98	2111.96	1064.99	E	2253.93	2235.92	2236.90	1127.47	20
2258.03	2240.02	2241.00	1129.52	E	2124.89	2106.88	2107.86	1062.94	19
2387.06	2369.05	2370.05	1194.04	E	1995.85	1977.84	1978.82	998.42	18
2474.11	2456.09	2457.08	1237.55	S	1866.80	1848.79	1849.78	933.90	17
2589.13	2571.12	2572.10	1295.07	D	1779.77	1761.76	1762.74	890.39	16
2688.20	2670.19	2671.17	1344.59	V	1664.74	1646.73	1647.72	832.87	15
2785.25	2767.24	2768.23	1393.13	Р	1565.69	1547.67	1548.65	783.34	14
2856.29	2838.28	2839.26	1428.65	A	1468.62	1450.61	1451.60	734.81	13
2953.34	2935.33	2936.32	1477.17	P	1397.58	1379.58	1380.56	699.29	12
3054.39	3036.38	3037.36	1527.70	Т	1300.53	1282.52	1283.51	650.77	11
3221.39	3203.38	3204.36	1611.19	S(+79.97)	1199.49	1181.48	1182.46	600.24	10
3318.44	3300.43	3301.41	1659.72	Р	1032.49	1014.48	1015.48	516.74	9
3415.49	3397.48	3398.47	1708.25	Р	935.43	917.42	918.41	468.22	8
3514.56	3496.55	3497.54	1757.78	V	838.38	820.37	821.35	419.69	7
3681.56	3663.55	3664.53	1841.28	S(+79.97)	739.31	721.30	722.29	370.16	6
3778.61	3760.60	3761.59	1889.81	Р	572.31	554.30	555.29	286.66	5
3877.68	3859.67	3860.66	1939.34	V	475.26	457.25	458.24	238.13	4
3991.73	3973.71	3974.70	1996.36	N	376.19	358.18	359.17	188.60	3
4078.76	4060.75	4061.73	2039.88	S	262.15	244.14	245.12	131.58	2
				R	175.12	157.11	158.09	88.06	1
	655.40 768.48 1053.63 1182.66 1182.66 1182.67	655.40 637.39 768.48 750.47 768.48 750.47 924.58 906.57 1053.63 1035.62 1182.66 1164.66 1182.66 1164.66 151.71 1293.70 1497.79 1479.78 1612.81 1594.81 1741.86 1723.85 1870.89 1852.89 1999.94 1981.92 2128.99 2110.98 2258.03 2240.02 2387.06 2369.05 2474.11 2450.09 2488.20 2670.19 2785.25 2767.24 2856.29 283.28 2953.34 2935.33 3054.39 3036.38 321.39 3203.83 318.44 300.43 314.54 3307.43 314.54 3663.55 377.61 3663.55 3778.61 3663.55 3778.63 369.67 399.73 397.37	655.40 637.39 638.37 768.48 750.47 751.46 768.48 750.47 751.46 924.58 906.57 907.56 1035.62 1035.62 1036.60 1182.66 1144.66 1165.64 1311.71 1293.70 1294.68 1497.79 1479.78 1480.76 1612.81 1594.81 1595.79 1741.86 1723.85 1724.83 1870.89 1852.89 1853.89 1999.94 1981.92 1982.92 2128.99 2140.92 2240.02 2285.03 2240.02 2441.00 2387.06 2369.05 2370.05 2474.11 2550.19 257.10 2580.13 2571.12 2572.10 2685.29 283.28 2839.26 2953.34 2935.33 2936.32 2034.39 3032.36 3204.36 3154.45 3304.33 3301.41 3154.56 3665.55 3647.53	655.40 637.39 638.37 328.20 768.48 750.47 751.46 384.74 754.58 856.75 907.56 462.79 1053.63 1035.62 1036.60 527.31 1182.66 1164.66 1165.64 591.83 1311.71 1237.01 224.68 696.36 1497.79 1479.78 1480.76 749.41 1612.81 1594.81 1595.79 806.91 1741.86 1723.85 1724.83 871.43 1870.89 1852.89 1853.89 935.95 1999.94 1981.92 1982.92 1000.47 2128.90 2140.02 241.00 1129.52 2584.1 257.11 2572.10 1295.52 2684.20 2670.19 2647.20 1440.45 2785.25 2767.24 2768.23 1393.13 2856.29 283.28 283.20.21 1428.65 2953.31 2935.33 2936.32 1477.17 3054.39 <	655.40 637.39 638.37 328.20 P 768.48 750.47 751.46 384.74 L 924.58 905.67 907.56 462.79 R 1053.63 1035.62 1036.60 527.31 E 1182.66 1164.66 1165.64 551.83 E 1311.71 1293.70 1294.68 6563.36 E 1470.79 1479.78 1480.76 749.41 W 1612.81 1594.81 1595.79 806.91 D 1741.86 1723.85 1724.83 871.43 E 1850.78 1852.89 1853.48 935.95 E 1999.94 1981.92 1982.92 100.47 E 2128.90 210.08 211.196 1064.99 E 2258.02 2240.02 247.00 1129.52 E 2474.11 245.09 2457.08 123.13 P 2655.2 267.12 2757.20 T P <	655.40 637.39 638.37 328.20 P 3695.53 768.48 750.47 751.46 384.74 L 3598.48 768.68 750.77 751.46 384.74 L 3598.48 750.67 707.56 462.79 R 3485.39 1053.63 1035.62 1036.60 527.31 E 3202.25 1182.66 1164.66 1165.64 591.83 E 3200.25 1311.71 1293.70 1294.68 656.36 E 3071.21 1497.79 1490.76 749.41 W 2942.17 1612.81 1594.81 1595.79 806.91 D 2756.09 1741.86 1724.83 871.43 E 261.00 1728.99 1981.92 1982.92 1000.47 E 2382.97 2128.99 2110.92 1982.92 1000.47 E 2382.97 2285.03 2240.02 241.00 112.52 E 2124.89 238	655.40 637.39 638.37 328.20 P 3695.53 3677.52 768.48 750.47 751.46 384.74 L 3598.48 3580.47 768.48 750.47 751.46 384.74 L 3598.48 3580.47 924.58 905.57 907.75 462.79 R 3485.39 3467.38 1053.63 1035.62 1036.60 527.31 E 320.25 318.24 1182.66 1164.66 1165.64 591.83 E 3200.25 3182.24 1311.71 1293.70 1294.68 656.36 E 307.121 3053.20 1497.78 1440.76 749.41 W 2942.17 2924.15 1612.81 1594.81 1595.89 857.85 E 210.02 278.08 1741.86 1724.83 871.43 E 261.06 2623.05 2128.99 210.92 110.92 100.47 E 2382.97 2264.92 2128.90 211.96 <td>655.40 637.39 638.37 328.20 P 3695.53 3677.52 3678.50 768.48 750.47 751.46 384.74 L 3598.48 380.47 3581.45 924.58 905.57 907.56 462.79 R 3485.39 3467.33 3468.37 1053.63 1035.62 1036.60 527.31 E 3329.29 311.28 3312.27 1182.66 1164.66 1165.64 591.83 E 200.25 3182.24 3183.22 1311.71 1293.70 1294.68 655.36 E 307.121 0503.20 3054.18 1497.78 1449.77 1440.76 749.41 W 2942.17 2924.15 2925.14 1612.81 1594.81 1595.79 806.91 D 2756.09 2730.06 2739.06 1741.86 1723.85 1852.89 1852.89 1982.92 100.47 E 2382.97 2364.96 2365.95 21285.02 2440.02 241.00 11</td> <td>655.40 637.39 638.37 328.20 P 3695.53 3677.52 3678.50 1848.27 768.48 750.47 751.46 384.74 L 3598.48 380.47 3581.45 1799.74 924.58 905.57 907.56 462.79 R 3445.39 3667.33 3468.37 1743.20 1053.63 1035.62 1036.60 527.31 E 3329.29 311.28 3312.27 1655.15 1182.66 1164.66 1165.64 591.83 E 320.22 305.20 305.41 1575.01 1497.79 1449.76 749.41 W 2942.17 2924.15 2925.14 1471.58 1612.81 1594.81 1595.79 806.91 D 2756.09 2730.06 1378.54 1741.86 1724.83 871.43 E 261.06 263.05 2624.03 1321.03 1870.89 1981.92 1982.92 100.47 E 238.29 236.49 1276.79 12285.01</td>	655.40 637.39 638.37 328.20 P 3695.53 3677.52 3678.50 768.48 750.47 751.46 384.74 L 3598.48 380.47 3581.45 924.58 905.57 907.56 462.79 R 3485.39 3467.33 3468.37 1053.63 1035.62 1036.60 527.31 E 3329.29 311.28 3312.27 1182.66 1164.66 1165.64 591.83 E 200.25 3182.24 3183.22 1311.71 1293.70 1294.68 655.36 E 307.121 0503.20 3054.18 1497.78 1449.77 1440.76 749.41 W 2942.17 2924.15 2925.14 1612.81 1594.81 1595.79 806.91 D 2756.09 2730.06 2739.06 1741.86 1723.85 1852.89 1852.89 1982.92 100.47 E 2382.97 2364.96 2365.95 21285.02 2440.02 241.00 11	655.40 637.39 638.37 328.20 P 3695.53 3677.52 3678.50 1848.27 768.48 750.47 751.46 384.74 L 3598.48 380.47 3581.45 1799.74 924.58 905.57 907.56 462.79 R 3445.39 3667.33 3468.37 1743.20 1053.63 1035.62 1036.60 527.31 E 3329.29 311.28 3312.27 1655.15 1182.66 1164.66 1165.64 591.83 E 320.22 305.20 305.41 1575.01 1497.79 1449.76 749.41 W 2942.17 2924.15 2925.14 1471.58 1612.81 1594.81 1595.79 806.91 D 2756.09 2730.06 1378.54 1741.86 1724.83 871.43 E 261.06 263.05 2624.03 1321.03 1870.89 1981.92 1982.92 100.47 E 238.29 236.49 1276.79 12285.01

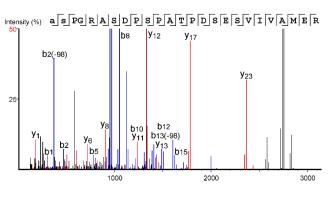
S2653-phospho, S2657-phospho, Htt from human brain



1 2 3	359.21	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
3	333.21	341.20	342.19	180.11	E(+229.16)					28
	488.26	470.25	471.23	244.63	E	3144.19	3126.18	3127.16	1572.59	27
. 1	617.30	599.29	600.27	309.15	E	3015.15	2997.13	2998.12	1508.07	26
4	803.38	785.37	786.35	402.19	w	2886.10	2868.09	2869.08	1443.55	25
5	918.41	900.39	901.38	459.71	D	2700.02	2682.01	2683.00	1350.51	24
6	1047.45	1029.44	1030.42	524.22	E	2585.00	2566.99	2567.97	1293.00	23
7	1176.49	1158.48	1159.46	588.74	E	2455.95	2437.94	2438.93	1228.48	22
8	1305.53	1287.51	1288.51	653.27	E	2326.91	2308.90	2309.88	1163.96	21
9	1434.57	1416.56	1417.55	717.79	E	2197.87	2179.86	2180.84	1099.43	20
10	1563.62	1545.61	1546.59	782.31	E	2068.83	2050.82	2051.80	1034.91	19
11	1692.66	1674.65	1675.63	846.83	E	1939.78	1921.77	1922.76	970.39	18
12	1763.70	1745.69	1746.67	882.35	А	1810.74	1792.73	1793.71	905.87	17
13	1878.72	1860.71	1861.70	939.86	D	1739.70	1721.69	1722.68	870.35	16
14	1949.76	1931.75	1932.73	975.38	Α	1624.68	1606.67	1607.65	812.84	15
15	2046.81	2028.80	2029.79	1023.91	Р	1553.64	1535.62	1536.61	777.32	14
16	2117.85	2099.84	2100.82	1059.43	Α	1456.59	1438.58	1439.56	728.79	13
17	2214.90	2196.89	2197.88	1107.95	Р	1385.55	1367.54	1368.52	693.27	12
18	2301.94	2283.93	2284.91	1151.47	S	1288.50	1270.49	1271.47	644.75	11
19	2468.93	2450.92	2451.91	1234.97	S(+79.97)	1201.46	1183.45	1184.44	601.23	10
20	2565.99	2547.98	2548.96	1283.49	Р	1034.47	1016.46	1017.44	517.74	9
21	2663.04	2645.03	2646.01	1332.02	Р	937.41	919.40	920.39	469.21	8
22	2764.09	2746.08	2747.06	1382.54	Т	840.36	822.35	823.33	420.68	7
23	2931.09	2913.08	2914.06	1466.04	S(+79.97)	739.31	721.30	722.29	370.16	6
24	3028.14	3010.13	3011.11	1514.57	Р	572.32	554.30	555.29	286.66	5
25	3127.21	3109.20	3110.18	1564.10	٧	475.26	457.25	458.24	238.13	4
26	3241.25	3223.24	3224.22	1621.12	N	376.19	358.18	359.17	188.60	3
27	3328.28	3310.27	3311.26	1664.67	S	262.15	244.14	245.12	131.58	2
27					R	175.12	157.11	158.09	88.06	1

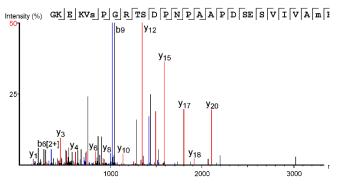
S2653-phospho, S2657-phospho, Htt from mouse brain

S2936-phospho, Htt from mouse brain



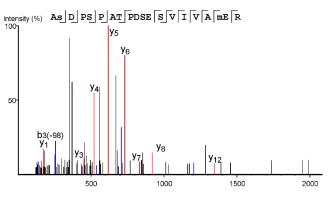
#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	301.21	283.20	284.18	151.10	A(+229.16)					2
2	468.21	450.20	451.18	234.60	S(+79.97)	2536.14	2518.13	2519.11	1268.57	2
3	565.26	547.25	548.23	283.13	Р	2369.14	2351.14	2352.11	1185.07	2
4	622.28	604.29	605.25	311.64	G	2272.09	2254.08	2255.06	1136.54	2
5	778.38	760.37	761.35	389.69	R	2215.07	2197.06	2198.04	1108.03	2
6	849.42	831.41	832.39	425.21	A	2058.96	2040.95	2041.94	1029.98	2
7	936.47	918.44	919.42	468.73	S	1987.93	1969.92	1970.90	994.46	1
8	1051.48	1033.46	1034.45	526.24	D	1900.90	1882.89	1883.87	950.95	1
9	1148.53	1130.52	1131.50	574.77	Р	1785.87	1767.86	1768.86	893.43	1
10	1235.56	1217.54	1218.56	618.28	S	1688.82	1670.81	1671.79	844.91	1
11	1332.62	1314.62	1315.59	666.81	P	1601.79	1583.77	1584.76	801.39	1
12	1403.65	1385.64	1386.63	702.33	A	1504.73	1486.70	1487.70	752.87	1
13	1504.73	1486.70	1487.70	752.85	Т	1433.69	1415.68	1416.67	717.35	1
14	1601.75	1583.74	1584.73	801.38	P	1332.65	1314.62	1315.64	666.82	1
15	1716.78	1698.77	1699.75	858.89	D	1235.59	1217.58	1218.56	618.30	1
16	1803.81	1785.80	1786.78	902.41	S	1120.57	1102.56	1103.54	560.78	1
17	1932.85	1914.84	1915.83	966.93	E	1033.54	1015.52	1016.51	517.27	
18	2019.89	2001.87	2002.86	1010.44	S	904.49	886.48	887.47	452.75	
19	2118.95	2100.94	2101.93	1059.98	V	817.46	799.45	800.43	409.23	
20	2232.04	2214.03	2215.01	1116.52	I	718.39	700.38	701.36	359.70	
21	2331.11	2313.10	2314.08	1166.05	V	605.31	587.30	588.28	303.15	
22	2402.14	2384.13	2385.12	1201.56	A	506.24	488.23	489.21	253.62	
23	2533.18	2515.17	2516.16	1267.09	М	435.20	417.19	418.17	218.10	
	2662.23	2644.22	2645.20	1331.61	E	304.16	286.15	287.14	152.58	
24					R	175.12	157.11	158.09	88.06	

S2936-phospho, hu Htt from HEK293



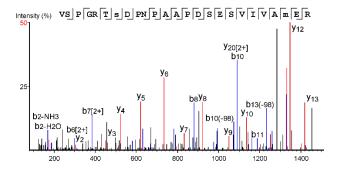
1 2 3 4 5 6	58.03 186.12 315.17 443.26	40.02 168.11 297.16	41.00 169.10	29.51	G					1
3 4 5	315.17 443.26			00.50						29
4 5	443.26	297.16		93.56	К	3063.45	3045.43	3046.42	1532.22	28
5			298.14	158.08	E	2935.35	2917.34	2918.32	1468.18	27
	E (0.00	425.25	426.23	222.13	K	2806.31	2788.30	2789.28	1403.65	26
6	542.33	524.32	525.30	271.67	٧	2678.21	2660.20	2661.19	1339.61	25
•	709.34	691.32	692.30	355.16	S(+79.97)	2579.14	2561.13	2562.12	1290.07	24
7	806.38	788.37	789.36	403.69	Р	2412.15	2394.14	2395.12	1206.57	23
8	863.40	845.39	846.38	432.20	G	2315.09	2297.08	2298.07	1158.05	22
9	1019.47	1001.47	1002.48	510.25	R	2258.07	2240.06	2241.04	1129.54	21
10	1120.55	1102.54	1103.52	560.78	Т	2101.97	2083.96	2084.94	1051.49	20
11	1207.58	1189.57	1190.56	604.29	S	2000.92	1982.91	1983.90	1000.96	19
12	1322.61	1304.60	1305.58	661.81	D	1913.89	1895.88	1896.86	957.45	18
13	1419.67	1401.66	1402.64	710.33	Р	1798.86	1780.85	1781.84	899.93	17
14	1533.71	1515.70	1516.68	767.34	N	1701.81	1683.80	1684.78	851.41	16
15	1630.76	1612.75	1613.73	815.88	Р	1587.76	1569.76	1570.76	794.38	15
16	1701.81	1683.79	1684.77	851.40	Α	1490.71	1472.70	1473.69	745.86	14
17	1772.83	1754.82	1755.81	886.92	Α	1419.67	1401.66	1402.67	710.34	13
18	1869.89	1851.88	1852.86	935.44	Р	1348.64	1330.63	1331.61	674.82	12
19	1984.91	1966.90	1967.89	992.96	D	1251.60	1233.58	1234.56	626.29	11
20	2071.94	2053.93	2054.92	1036.47	S	1136.56	1118.55	1119.53	568.78	10
21	2200.99	2182.98	2183.96	1100.99	E	1049.53	1031.52	1032.50	525.26	9
22	2288.02	2270.01	2270.99	1144.51	S	920.49	902.48	903.46	460.74	8
23	2387.09	2369.08	2370.06	1194.04	٧	833.45	815.44	816.43	417.23	7
24	2500.17	2482.16	2483.14	1250.59	I	734.38	716.38	717.36	367.69	6
25	2599.24	2581.23	2582.21	1300.12	V	621.30	603.29	604.28	311.15	5
26	2670.28	2652.27	2653.25	1335.64	Α	522.23	504.22	505.21	261.62	4
27	2817.31	2799.30	2800.29	1409.16	M(+15.99)	451.22	433.20	434.17	226.10	3
28	2946.36	2928.34	2929.33	1473.68	E	304.16	286.14	287.13	152.58	2
					R	175.12	157.11	158.09	88.06	1

S2941-phospho, Htt from mouse brain



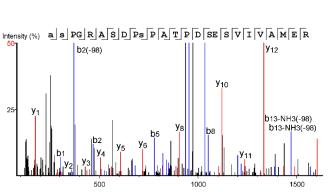
b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
72.04	54.03	55.02	36.52	A					20
239.04	221.03	222.02	120.02	S(+79.97)	2083.89	2065.88	2066.86	1042.44	19
354.07	336.06	337.04	177.54	D	1916.89	1898.88	1899.86	958.95	18
451.12	433.11	434.10	226.06	Р	1801.86	1783.85	1784.84	901.43	17
538.16	520.14	521.13	269.58	S	1704.81	1686.80	1687.78	852.91	16
635.21	617.20	618.18	318.10	Р	1617.78	1599.77	1600.75	809.39	15
706.24	688.23	689.22	353.62	A	1520.73	1502.72	1503.70	760.86	14
807.29	789.28	790.27	404.15	Т	1449.69	1431.68	1432.66	725.34	13
904.35	886.33	887.32	452.67	Р	1348.66	1330.63	1331.61	674.82	12
1019.37	1001.36	1002.35	510.19	D	1251.59	1233.58	1234.56	626.29	11
1106.40	1088.39	1089.38	553.70	S	1136.56	1118.55	1119.53	568.78	10
1235.45	1217.44	1218.42	618.22	E	1049.53	1031.52	1032.50	525.26	9
1322.48	1304.47	1305.45	661.74	S	920.48	902.48	903.46	460.74	8
1421.55	1403.54	1404.52	711.27	V	833.45	815.44	816.43	417.23	7
1534.63	1516.62	1517.60	767.82	I	734.39	716.38	717.36	367.69	6
1633.70	1615.69	1616.67	817.35	V	621.30	603.29	604.28	311.15	5
1704.74	1686.73	1687.71	852.87	Α	522.23	504.22	505.21	261.62	4
1851.77	1833.76	1834.75	926.39	M(+15.99)	451.20	433.19	434.17	226.10	3
1980.81	1962.80	1963.79	990.91	E	304.16	286.15	287.13	152.58	2
				R	175.12	157.11	158.09	88.06	1
0.03	1502.00	1903.79		-				<u>.</u>	
	239.04 354.07 451.12 538.16 635.21 706.24 807.29 904.35 1019.37 1106.40 1235.45 1322.48 1421.55 1534.63 1633.70 1704.74 1851.77 1980.81 0.03	239.04 221.03 354.07 336.06 451.12 433.11 538.16 520.14 635.21 617.20 706.24 688.23 807.29 789.28 904.35 886.33 1019.37 1001.36 1106.40 1088.39 1235.45 1217.44 1322.48 1304.47 1421.55 1403.54 1534.63 1516.62 1633.70 1615.69 1704.74 1686.73 1851.77 1833.76 1980.81 1962.80 .0.03	239.04 221.03 222.02 354.07 336.06 337.04 451.12 433.11 434.10 538.16 520.14 521.13 635.21 617.20 618.18 706.24 668.23 669.22 807.29 789.28 790.27 904.35 886.33 887.32 1019.37 1001.36 1002.35 1106.40 1088.39 1089.38 1235.45 1217.44 1218.42 1322.48 1304.47 1305.45 1421.55 1403.54 1404.52 1534.63 1516.62 1517.60 1633.70 1615.69 1616.67 1704.74 1686.73 1687.71 1851.77 1833.76 1834.75 1980.81 1962.80 1963.79 .0.03	239.04 221.03 222.02 120.02 354.07 336.06 337.04 177.54 451.12 433.11 434.10 226.06 538.16 520.14 521.13 269.58 635.21 617.20 618.18 318.10 706.24 688.23 689.22 353.62 807.29 789.28 790.27 404.15 904.35 886.33 887.32 452.67 1019.37 1001.36 1002.35 510.19 1106.40 1088.39 1089.38 553.70 1235.45 121.744 1218.42 618.22 1325.45 121.744 1218.42 618.22 1325.45 121.744 1218.42 618.22 1324.8 1304.47 1305.45 661.74 1421.55 1403.54 1404.52 711.27 1534.63 1516.62 1517.60 767.82 1633.70 1615.69 1616.67 817.35 1704.74 1686.73 1687.71 852.87 1851.77 1833.76 1834.75 926.39 1980.81 1962.80 1963.79 990.91	239.04 221.03 222.02 120.02 \$	239.04 221.03 222.02 120.02 \$(+79.97) 2083.89 354.07 336.06 337.04 177.54 D 1916.89 451.12 433.11 434.10 226.06 P 1801.86 538.16 520.14 521.13 269.58 S 1704.81 635.21 617.20 618.18 318.10 P 1617.78 706.24 688.23 689.22 353.62 A 1520.73 807.29 789.28 790.27 404.15 T 1496.69 904.35 886.33 887.32 452.67 P 1384.66 1019.37 1001.36 1002.35 510.19 D 125.15 1235.45 121.744 1218.42 618.22 E 1049.53 1322.48 1304.47 1305.45 661.74 S 920.48 1421.55 1403.54 1616.67 817.35 V 621.30 153.40 1517.60 161.67 817.35 V	239.04 221.03 222.02 120.02 \$\$(+79.97) 2083.89 2065.88 354.07 336.06 337.04 177.54 D 1916.89 1898.88 451.12 433.11 434.10 226.06 P 1801.86 1783.85 538.16 520.14 521.13 269.58 S 1704.81 1668.80 635.21 617.20 618.18 318.10 P 1617.78 1599.77 706.24 688.23 689.22 353.62 A 1520.73 1502.72 807.29 789.28 790.77 404.15 T 1449.69 1431.68 904.35 886.33 887.32 452.67 P 1348.66 133.063 1019.37 1001.36 1002.35 510.19 D 1251.59 1233.45 1235.45 1217.44 1218.42 618.22 E 1049.53 1031.52 1322.48 1304.47 1305.45 661.74 S 920.48 902.48	239.04 221.03 222.02 120.02 S(+79.97) 2083.89 2065.88 2066.86 354.07 336.06 337.04 177.54 D 1916.89 1898.88 1899.88 451.12 433.11 434.10 226.06 P 1801.86 1783.85 1784.84 538.16 520.14 521.13 269.58 S 1704.81 1686.80 1687.78 635.21 617.20 618.18 318.10 P 1617.78 1599.77 1600.75 706.24 688.23 689.22 353.62 A 1520.73 1502.72 1503.70 807.29 789.28 700.27 404.15 T 1449.69 1431.68 1432.66 904.35 886.33 887.32 452.67 P 1348.66 130.63 1331.61 1019.37 1001.36 102.35 510.19 D 123.59 1233.58 1234.55 1106.40 1083.39 1632.20 131.52 1032.50 1325.45 <td>239.04 221.03 222.02 120.02 \$(+79.97) 2083.89 2065.88 2066.86 1042.44 354.07 336.06 337.04 177.54 D 1916.89 1898.88 1899.86 985.95 451.12 433.11 243.10 226.06 P 1801.86 1783.85 1784.84 901.43 538.16 520.14 521.13 269.58 S 1704.81 1686.80 1687.78 852.91 635.21 617.20 618.18 318.10 P 1617.78 1599.77 1600.75 809.39 706.24 688.23 689.22 353.62 A 1520.73 1502.72 1503.70 760.86 807.29 799.27 404.15 T 1494.69 1431.68 1432.66 725.34 101.937 1001.36 102.35 510.19 D 1231.59 1233.58 124.56 626.29 1106.40 1088.39 1089.38 553.70 S 1136.56 1118.55 1119.</td>	239.04 221.03 222.02 120.02 \$(+79.97) 2083.89 2065.88 2066.86 1042.44 354.07 336.06 337.04 177.54 D 1916.89 1898.88 1899.86 985.95 451.12 433.11 243.10 226.06 P 1801.86 1783.85 1784.84 901.43 538.16 520.14 521.13 269.58 S 1704.81 1686.80 1687.78 852.91 635.21 617.20 618.18 318.10 P 1617.78 1599.77 1600.75 809.39 706.24 688.23 689.22 353.62 A 1520.73 1502.72 1503.70 760.86 807.29 799.27 404.15 T 1494.69 1431.68 1432.66 725.34 101.937 1001.36 102.35 510.19 D 1231.59 1233.58 124.56 626.29 1106.40 1088.39 1089.38 553.70 S 1136.56 1118.55 1119.

S2941-phospho, hu Htt from HEK293



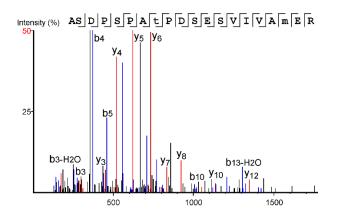
#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	100.08	82.07	83.05	50.54	V					25
2	187.11	169.10	170.06	94.05	S	2579.14	2561.13	2562.12	1290.07	24
3	284.16	266.15	267.13	142.58	Р	2492.11	2474.10	2475.09	1246.56	23
4	341.18	323.17	324.16	171.09	G	2395.06	2377.05	2378.03	1198.05	22
5	497.28	479.27	480.26	249.14	R	2338.04	2320.03	2321.01	1169.52	21
6	598.33	580.32	581.29	299.65	Т	2181.94	2163.93	2164.91	1091.45	20
7	765.33	747.32	748.30	383.16	S(+79.97)	2080.89	2062.88	2063.86	1040.94	19
8	880.35	862.35	863.33	440.68	D	1913.89	1895.88	1896.86	957.45	18
9	977.41	959.40	960.38	489.20	Р	1798.86	1780.85	1781.84	899.93	17
10	1091.45	1073.44	1074.43	546.23	N	1701.81	1683.80	1684.78	851.41	16
11	1188.50	1170.49	1171.48	594.75	Р	1587.77	1569.76	1570.74	794.39	15
12	1259.54	1241.54	1242.52	630.28	А	1490.72	1472.70	1473.69	745.86	14
13	1330.59	1312.57	1313.55	665.81	Α	1419.68	1401.67	1402.67	710.34	13
14	1427.63	1409.62	1410.60	714.32	Р	1348.64	1330.63	1331.62	674.82	12
15	1542.66	1524.65	1525.63	771.83	D	1251.59	1233.58	1234.56	626.29	11
16	1629.69	1611.68	1612.66	815.35	S	1136.56	1118.55	1119.53	568.78	10
17	1758.73	1740.72	1741.71	879.87	E	1049.53	1031.52	1032.50	525.26	9
18	1845.77	1827.76	1828.74	923.38	S	920.49	902.48	903.46	460.74	8
19	1944.83	1926.82	1927.81	972.92	V	833.45	815.44	816.43	417.23	7
20	2057.92	2039.91	2040.89	1029.46	I	734.38	716.38	717.36	367.69	6
21	2156.99	2138.98	2139.96	1078.99	V	621.30	603.29	604.28	311.15	5
22	2228.02	2210.01	2211.00	1114.51	Α	522.23	504.22	505.21	261.62	4
23	2375.06	2357.05	2358.03	1188.03	M(+15.99)	451.20	433.19	434.17	226.12	3
24	2504.10	2486.09	2487.07	1252.58	E	304.16	286.15	287.13	152.58	2
25					R	175.12	157.11	158.09	88.06	1
Error (da)	0.03									



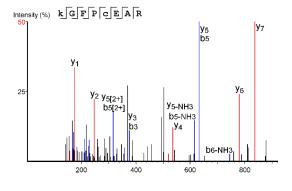


S2936-phospho, S2944-phospho, Htt from mouse brain





K2969-acetyl, Htt from human brain



#	b	b-H2O	b-NH3	b (2+)	Seq	У	y-H2O	y-NH3	y (2+)	#
1	301.21	283.20	284.18	151.10	A(+229.16)					2
2	468.21	450.20	451.18	234.60	S(+79.97)	2616.10	2598.09	2599.08	1308.55	2
3	565.26	547.25	548.23	283.13	Р	2449.11	2431.10	2432.08	1225.05	2
4	622.28	604.27	605.25	311.64	G	2352.05	2334.04	2335.03	1176.53	2
5	778.38	760.37	761.35	389.69	R	2295.03	2277.02	2278.01	1148.02	1
6	849.42	831.41	832.39	425.21	A	2138.93	2120.92	2121.90	1069.97	1
7	936.45	918.44	919.42	468.73	S	2067.89	2049.88	2050.87	1034.47	:
8	1051.47	1033.46	1034.47	526.24	D	1980.86	1962.85	1963.83	990.93	:
9	1148.53	1130.52	1131.50	574.77	Р	1865.83	1847.82	1848.81	933.42	:
10	1315.53	1297.52	1298.50	658.26	S(+79.97)	1768.78	1750.77	1751.76	884.89	:
11	1412.58	1394.57	1395.55	706.79	Р	1601.79	1583.77	1584.76	801.39	:
12	1483.62	1465.61	1466.59	742.31	A	1504.73	1486.72	1487.70	752.87	:
13	1584.67	1566.65	1567.64	792.83	Т	1433.70	1415.68	1416.67	717.35	
14	1681.72	1663.71	1664.69	841.36	Р	1332.65	1314.64	1315.61	666.82	
15	1796.75	1778.74	1779.72	898.87	D	1235.59	1217.58	1218.57	618.30	:
16	1883.78	1865.77	1866.75	942.39	S	1120.57	1102.56	1103.56	560.79	
17	2012.82	1994.81	1995.79	1006.91	E	1033.53	1015.52	1016.51	517.27	
18	2099.85	2081.84	2082.83	1050.43	S	904.49	886.47	887.46	452.75	
19	2198.92	2180.91	2181.89	1099.96	V	817.46	799.45	800.43	409.23	
20	2312.01	2293.99	2294.98	1156.50	I	718.39	700.38	701.36	359.70	
21	2411.07	2393.06	2394.05	1206.04	V	605.31	587.30	588.27	303.15	
22	2482.11	2464.10	2465.08	1241.56	A	506.24	488.23	489.21	253.62	
23	2613.15	2595.14	2596.12	1307.08	M	435.20	417.19	418.18	218.10	
24	2742.19	2724.18	2725.17	1371.60	E	304.16	286.15	287.13	152.58	
25			-		R	175.12	157.11	158.09	88.06	1

#	b	b-H2O	b-NH3	b (2+)	Seq	у	y-H2O	y-NH3	y (2+)	#
1	72.04	54.03	55.02	36.52	A					20
2	159.08	141.07	142.05	80.04	S	2083.89	2065.88	2066.86	1042.44	19
3	274.10	256.09	257.08	137.55	D	1996.86	1978.85	1979.83	998.93	18
4	371.16	353.15	354.13	186.08	P	1881.83	1863.82	1864.80	941.41	17
5	458.19	440.18	441.16	229.59	S	1784.78	1766.77	1767.75	892.89	16
6	555.24	537.23	538.21	278.12	Р	1697.75	1679.73	1680.72	849.37	15
7	626.28	608.26	609.25	313.64	Α	1600.69	1582.68	1583.67	800.85	14
8	807.29	789.28	790.27	404.15	T(+79.97)	1529.66	1511.64	1512.63	765.33	13
9	904.35	886.33	887.32	452.67	P	1348.64	1330.63	1331.61	674.82	12
10	1019.37	1001.36	1002.35	510.19	D	1251.59	1233.58	1234.56	626.28	11
11	1106.40	1088.39	1089.38	553.70	S	1136.56	1118.55	1119.53	568.78	10
12	1235.45	1217.44	1218.42	618.22	E	1049.54	1031.52	1032.50	525.26	9
13	1322.48	1304.47	1305.45	661.74	S	920.49	902.48	903.46	460.74	8
14	1421.52	1403.54	1404.52	711.27	V	833.46	815.44	816.43	417.23	7
15	1534.63	1516.62	1517.60	767.82	I	734.39	716.38	717.36	367.69	6
16	1633.70	1615.69	1616.67	817.35	V	621.30	603.29	604.28	311.16	5
17	1704.74	1686.73	1687.71	852.87	A	522.23	504.22	505.21	261.62	4
18	1851.77	1833.76	1834.75	926.39	M(+15.99)	451.20	433.19	434.17	226.10	3
19	1980.81	1962.80	1963.79	990.91	E	304.16	286.15	287.14	152.58	2
20					R	175.12	157.10	158.09	88.06	1
or (da)	0.03			•			•			

