Supplemental Table 1: Calculated (C) and measured (M) *m/z* values of the precursor ions and of identified fragment ions for peptides in Figures 1 – 5.

av = average mass; mono = monoisotopic mass; ▼*- loss of* H_2O*;* ▪*- loss of* NH_3*.*

Fig.1: ^{1543}**KAS^{P}GSENEGDYNPGRK**^{1558}					
MH_3^{+3} (av)		**$[M+3H]^{+3}$ - H_3PO_4 (mono)**		**$[M+3H]^{▼+3}$ - H_3PO_4 (mono)**	
C	**M**	**C**	**M**	**C**	**M**
597.3	**597.7**	564.6	**564.9**	558.6	**559.0**

b-H_3PO_4 (mono)		**b ions (mono)**		**Peptide Sequence**			**y ions (mono)**		**y-H_3PO_4 (mono)**	
M	**C**	**M**	**C**				**C**	**M**	**C**	**M**
	---		---	1	**K**	16				---
		199.5	200.1	2	**A**	15			781.8^{2+}	**782.3^{2+}**
269.2	269.2	**▪350.1**	▪350.1	3	**S^{p}**	14	795.3^{2+} ▼786.3^{2+}	**795.9^{2+}** **▼786.9^{2+}**	746.3	**746.9^{2+}**
				4	**G**	13	711.8^{2+} ▪703.3^{2+}	**712.4^{2+}** **▪703.8^{2+}**		
				5	**S**	12				
				6	**E**	11				
656.8	656.3			7	**N**	10	575.3^{2+}	**575.4^{2+}**		
				8	**E**	9				
				9	**G**	8	906.4 453.7^{2+}	**906.5** **453.8^{2+}**		
957.5	957.4	**1055.5**	1055.4	10	**D**	7	849.4 ▼831.4	**849.7** **▼831.8**		
				11	**Y**	6	734.4 367.7^{2+}	**734.6** **368.3^{+2}**		
				12	**N**	5	571.3 ▪554.3 ▪277.6^{2+}	**571.4** **▪554.5** **▪277.8^{+2}**		
				13	**P**	4	457.3 ▪220.6^{+2}	**457.5** **▪221.7^{+2}**		
				14	**G**	3				
				15	**R**	2				
				16	**K**	1				

Fig.2A: ^{1392}VKAS^{P}PITNDGEDEFVPSDGLDKDEYTFSPGK^{1422}

MH_3^{+3} (av)		$[M+3H]^{+3}$ - H_3PO_4 (mono)		$[M+3H]^{\blacktriangledown +3}$ - H_3PO_4 (mono)	
C	**M**	C	**M**	C	**M**
1147.2	**1147.4**	1114.5	**1114.7**	1108.5	**1108.4**

b-H_3PO_4 (mono)		b ions (mono)		Peptide Sequence			y ions (mono)	
M	C	**M**	C				C	**M**
				1	**V**	31		---
	---			2	**K**	30		
				3	**A**	29		
				4	**S^{P}**	28	1570.2^{+2} $\blacktriangledown$1561.1^{+2}	**1570.2^{+2}** $\blacktriangledown$**1561.2^{+2}**
				5	**P**	27	1486.7^{+2} $\blacksquare$1478.2^{+2}	**1486.8^{+2}** $\blacksquare$**1478.4^{+2}**
578.9	578.4	**676.6**	676.3	6	**I**	26		
				7	**T**	25	1381.6^{+2}	**1382.3^{+2}**
				8	**N**	24		
		1006.7	1006.5	9	**D**	23	1274.1^{+2}	**1274.8^{+2}**
				10	**G**	22	1216.5^{+2}	**1217.2^{+2}**
				11	**E**	21		
		1308.0	1307.6	12	**D**	20		
				13	**E**	19	1066.0^{+2}	**1066.2^{+2}**
				14	**F**	18		
1584.7 **793.1^{+2}**	1584.7 792.9^{+2}	**1682.7** $\blacksquare$**1665.7**	1682.7 $\blacksquare$1665.7	15	**V**	17	1854.9	**1855.1**
				16	**P**	16	1755.8 $\blacktriangledown$1737.8 878.4^{+2} $\blacktriangledown$869.4^{+2}	**1755.8** $\blacktriangledown$**1737.7** **878.9^{+2}** $\blacktriangledown$**869.8^{+2}**
				17	**S**	15		
		1981.8	1981.8	18	**D**	14		
				19	**G**	13	1456.7 728.9^{+2}	**1456.7** **729.6^{+2}**

		20	**L**	12		
		21	**D**	11		
		22	**K**	10	1171.6	**1171.7**
		23	**D**	9	1043.5	**1043.8**
		24	**E**	8	928.4	**928.7**
		25	**Y**	7		
		26	**T**	6		
		27	**F**	5	535.3	**535.4**
		28	**S**	4	▼370.2	▼**370.4**
		29	**P**	3		
		30	**G**	2		
		31	**K**	1		

Fig.2B: ^{1423}SKAT^{P}PEKSLHDKK^{1435}

MH_3^{+3} (av)		$[M+3H]^{+3} - H_3PO_4$ (mono)		$[M+3H]^{▼+3}$ (mono)		$[M+3H]^{▼+3} - H_3PO_4$ (mono)	
C	**M**	C	**M**	C	**M**	C	**M**
517.2	**517.9**	484.3	**484.9**	510.9	**511.5**	478.3	**479.2**

b-H_3PO_4 (mono)		**b ions (mono)**		**Peptide Sequence**			**y ions (mono)**		**y-H_3PO_4 (mono)**	
M	C	**M**	C				C	**M**	C	**M**
			---	1	**S**	13				---
	---	**216.4**	216.1	2	**K**	12				
				3	**A**	11	667.3^{+2}	**667.7^{+2}**	618.3^{+2} ▼603.7^{+2}	**618.7^{+2} ▼609.7^{+2}**
370.6	370.2	**468.4**	468.2	4	**T^{P}**	10				
				5	**P**	9	541.3^{+2} ▪532.8^{+2}	**541.9^{+2} ▪533.2^{+2}**		
		694.4	694.3	6	**E**	8				
				7	**K**	7				
				8	**S**	6	▪710.4	**▪711.0**		
				9	**L**	5				
				10	**H**	4				
589.5^{+2}	588.8^{+2}	**638.3^{+2}**	637.8^{+2}	11	**D**	3				
		702.3^{+2}	701.8^{+2}	12	**K**	2	275.2	**275.5**		
				13	**K**	1				

Fig.3A: ^{656}**YAGPEDDAAITLAFSK**^{671}

MH_2^{+2} (av)		[M+2H]$^{\blacktriangledown+2}$ (mono)	
C	**M**	**C**	**M**
835.4	**835.8**	825.9	**826.0**

b ions (mono)		Peptide Sequence			y ions (mono)	
M	**C**				**C**	**M**
	---	1	**Y**	16		---
		2	**A**	15		
		3	**G**	14	717.9^{+2} $^{\blacktriangledown}$708.9^{+2}	718.2^{+2} $^{\blacktriangledown}$**709.2**$^{+2}$
		4	**P**	13	689.3^{+2}	**689.7**$^{+2}$
		5	**E**	12		
		6	**D**	11	1151.6	**1151.7**
		7	**D**	10	1036.6	**1036.6**
		8	**A**	9	921.5	**921.7**
890.5	890.4	9	**A**	8	850.5	**850.7**
		10	**I**	7	779.5	**779.6**
		11	**T**	6	666.4	**666.5**
1217.5 $^{\blacktriangledown}$**1199.6**	1217.6 $^{\blacktriangledown}$1199.5	12	**L**	5	565.3	**565.6**
$^{\blacktriangledown}$**1417.5**	$^{\blacktriangledown}$1417.6	13	**A**	4	452.3	**452.4**
		14	**F**	3	381.2	**381.2**
		15	**S**	2		
		16	**K**	1		

Fig.3B: ^{656}**Y*AGPEDDAAITLAFSK**^{671}

MH_2^{+2} (av)

C	M
875.4	**875.2**

b ions (mono)		Peptide Sequence	y ions (mono)	
M	C		C	M
	---	1 **Y** 16		---
		2 **A** 15		
		3 **G** 14	1434.7 717.9^{+2} ▼708.9^{+2}	**1434.8** **718.3^{+2}** **▼708.9^{+2}**
		4 **P** 13	1377.7 689.3^{+2}	**1377.7** **689.5^{+2}**
		5 **E** 12		
		6 **D** 11	1151.6	**1151.7**
		7 **D** 10	1036.6	**1036.6**
		8 **A** 9	921.5	**921.6**
971.2	970.3	9 **A** 8	850.5	**850.7**
		10 **I** 7	779.5	**779.4**
		11 **T** 6	666.4	**666.5**
		12 **L** 5		
		13 **A** 4	452.3	**452.4**
		14 **F** 3		
		15 **S** 2		
		16 **K** 1		

Fig.4: ^{656}**Y*AGPEDDAAITLAFSK**^{671}

MH_2^{+2} (av)

C	M
875.4	**875.2**

b ions (mono) [+80 / +78 doublets]		Peptide Sequence			y ions (mono)	
M	**C**				**C**	**M**
	---	1	**Y**	16		---
		2	**A**	15		
		3	**G**	14		
		4	**P**	13	689.3^{+2}	**689.8**$^{+2}$
		5	**E**	12	1280.6	**1280.6**
		6	**D**	11	1151.6	**1151.8**
		7	**D**	10	1036.6	**1036.8**
		8	**A**	9	921.5	**921.7**
[970.3 / 968.3]	[970.3 / *-2*]	9	**A**	8	850.5	**850.6**
		10	**I**	7	779.5	**779.6**
[1184.6 / 1182.6] (+80/+78 doublet, low intensity)	[1184.5 / *-2*]	11	**T**	6	666.4	**666.6**
		12	**L**	5	565.3	**565.6**
		13	**A**	4	452.3	**452.5**
		14	**F**	3	381.2	**381.4**
		15	**S**	2		
		16	**K**	1		

Fig.5A: ^{708}**HLTYNDFINK**^{717}

MH_2^{+2} (av)		$[M+2H]^{\blacktriangledown +2}$ (mono)	
C	**M**	**C**	**M**
633.2	**633.7**	623.8	**624.5**

b ions (mono)		Peptide Sequence	y ions (mono)	
M	**C**		**C**	**M**
	---	1 **H** 10		---
251.4 **223.4 (a_2 ion)**	251.1 223.2 (a_2 ion)	2 **L** 9	1127.6	**1127.7**
352.4	352.2	3 **T** 8	1014.5 ▼996.5	**1014.7** **▼996.8**
		4 **Y** 7	913.4	**913.7**
		5 **N** 6	750.4	**750.7**
744.6 **▼726.7**	744.3 ▼726.3	6 **D** 5		
891.7 **▼873.7**	891.4 ▼873.4	7 **F** 4	521.3	**521.6**
1004.7 **▼986.7**	1004.5 ▼986.5	8 **I** 3	374.2	**374.4**
1118.7	1118.5	9 **N** 2	261.2	**261.4**
		10 **K** 1		

Fig.5B: ^{708}**HLTY*NDFINK**^{717}

MH_2^{+2} (av)		[M+2H]$^{\blacktriangledown+2}$ (mono)	
C	**M**	**C**	**M**
673.2	**672.4**	663.8	**663.6**

b ions (mono) [+80 / +78 doublets]		**Peptide Sequence**	**y ions (mono) [+80 / +78 doublets]**	
M	C		C	**M**
	---	1 **H** 10		---
251.4 **223.4 (a_2 ion)**	251.1 223.2 (a_2 ion)	2 **L** 9	[1207.5 /-*2*]	**[1207.6 / 1205.6]**
352.4	352.2	3 **T** 8	[1094.5 /-*2*] [$^{\blacktriangledown}$1076.4 /-*2*]	**[1094.6 / 1092.7]** **[$^{\blacktriangledown}$1076.7 / 1074.7]**
		4 **Y*** 7	[993.4 /-*2*]	**[993.7 / 991.7]**
		5 **N** 6	750.4	**750.8**
[824.6 / 822.6] **[$^{\blacktriangledown}$806.7 / 804.6]**	[824.3 /-*2*] [$^{\blacktriangledown}$806.3 /-*2*]	6 **D** 5		
[971.7 / 969.7] **[$^{\blacktriangledown}$953.6 / 951.4]**	[971.4 /-*2*] [$^{\blacktriangledown}$953.4 /-*2*]	7 **F** 4	521.3	**521.6**
[1084.7 / 1082.8] **[$^{\blacktriangledown}$1066.7 / 1064.7]**	[1084.4 /-*2*] [$^{\blacktriangledown}$1066.4 /-*2*]	8 **I** 3	374.2	**374.4**
		9 **N** 2	261.2	**261.4**
		10 **K** 1		