

Table S1. *S. pombe* strains used in this study

Strains	Genotype	Source
YDM71	<i>sid2-250 ade6-210 ura4-D18 leu1-32 h-</i>	Lab stock
YDM1117	<i>sid2-250 klp2Δ::ura4+ ade6-21 his3-D1 h-</i>	Lab stock
YMD5314	<i>sid2-250 mCherry-atb2::hph klp2-pk-GFP::ura h+</i>	Lab stock
YMD5301	<i>mCherry-atb2::hph klp2-pk-GFP::ura h+</i>	Lab stock
YDM5336	<i>cdc16-116 klp2-pk-GFP::ura mCherry-atb2::hph h-</i>	Lab stock
YDM5607	<i>cdc3-124 cdc16-116 sid2-13Myc::kan h?</i>	Lab stock
YDM5952	<i>nmt1-klp2-FLAG::leu sid2-250 klp2::ura ade6-21 his3-D1 h-</i>	This Study
YDM5953	<i>nmt1-klp2-S2A-FLAG::leu sid2-250 klp2::ura ade6-21 his3-D1 h-</i>	This Study
YDM6056	<i>nmt1-klp2-S2E-FLAG::leu sid2-250 klp2Δ::ura ade6-21 his3-D1 h-</i>	This Study
YDM105	<i>ade6-210 leu1-32 ura4-D18 h+</i>	Lab stock
YDM6108	<i>dhc1Δ::kan klp2Δ::ura leu- ade6-21 ura4-D18 leu1-32 h-</i>	This Study
YDM6109	<i>dhc1Δ::kan klp2Δ::ura nmt1-klp2-FLAG::leu ade6-21 ura4-D18 leu1-32 h+</i>	This Study
YDM6110	<i>dhc1Δ::kan klp2Δ::ura nmt1-klp2-2A-FLAG::leu ade6-21 ura4-D18 leu1-32 h+</i>	This Study
YDM6111	<i>dhc1Δ::kan klp2Δ::ura nmt1-klp2-2E-FLAG::leu ade6-21 ura4-D18 leu1-32 h+</i>	This Study
YDM106	<i>ade6-210 leu1-32 ura4-D18 h-</i>	This Study
YDM6246	<i>dhc1Δ::kan klp2Δ::ura leu- ade6-21 ura4-D18 leu1-32 h+</i>	This Study
YDM6247	<i>dhc1Δ::kan klp2Δ::ura nmt1-klp2-FLAG::leu ade6-21 ura4-D18 leu1-32 h-</i>	This Study
YDM6248	<i>dhc1Δ::kan klp2Δ::ura nmt1-klp2-2A-FLAG::leu ade6-21 ura4-D18 leu1-32 h-</i>	This Study
YDM6249	<i>dhc1Δ::kan klp2Δ::ura nmt1-klp2-2E-FLAG::leu ade6-21 ura4-D18 leu1-32 h-</i>	This Study
YDM1214	<i>cps1-191 leu1-32 lys1-131 ura4-D18 ade6 h-</i>	Lab stock
YDM6058	<i>nmt1-klp2-FLAG::leu klp2Δ::ura ade6-216 his3-D1 cps1-191 h-</i>	This Study
YDM6059	<i>nmt1-klp2-S2A-FLAG::leu klp2Δ::ura ade6-216 his3-D1 cps1-191h+</i>	This Study
YDM5874	<i>nmt1-klp2-GFP::leu klp2Δ::ura4 ade6-216 leu1-32 ura4-D18 his3-D1 h+</i>	This Study
YDM5880	<i>nmt1-klp2-S2A-GFP::leu klp2Δ::ura4 ade6-216 leu1-32 ura4-D18 his3-D1h+</i>	This Study
YDM5994	<i>nmt1-klp2-S2E-GFP::leu klp2Δ::ura4 ade6-216 leu1-32 ura4-D18 his3 h+</i>	This Study
YDM6209	<i>nmt1-klp2-FLAG::leu cdc11-GFP::kan klp2Δ::ura ade6-216 leu1-32 ura4-D18 his3-D1? h?</i>	This Study
YDM6210	<i>nmt1-klp2-S2A-FLAG::leu cdc11-GFP::kan klp2Δ::ura ade6-216 leu1-32 ura4-D18 his3-D1?</i>	This Study
YDM1142	<i>sid2-250 sid4-GFP::kan ura4-D18 ade6-21X h-</i>	Lab stock
YDM971	<i>sid4-GFP::kan ade6-21X leu1-32 ura4-D18 h-</i>	Lab stock
YDM6250	<i>nmt1-klp2-FLAG::leu cdc16-116 klp2Δ::ura ade6-216 leu1-32 ura4-D18 his3-D1? h?</i>	This Study
YDM6251	<i>nmt1-klp2-S2A-FLAG::leu cdc16-116 klp2Δ::ura ade6-216 leu1-32 ura4-D18 his3-D1? h?</i>	This Study
YDM5766	<i>mal3Δ::ura klp2-pk-GFP::ura mCherry-atb2::hph leu1-32 ura4-D18 his3Δ ade6-210 h?</i>	This Study
YDM5400	<i>mal3Δ::ura4 sid2-250 leu1-32 ur4+ ade6-210 h+</i>	Lab stock
YDM5883	<i>nmt1-klp2-SxDD1-GFP::leu mCherry-atb2::hph leu1-32 ura4-D18 h-</i>	This Study
YDM5884	<i>nmt1-klp2-SxDD2-GFP::leu mCherry-atb2::hph leu1-32 ura4-D18 h-</i>	This Study
YDM5877	<i>nmt1-klp2-SxDD1+2-GFP::leu klp2::ura4 ade6-216 leu1-32 ura4-D18 his3-D1</i>	This Study
YDM6071	<i>myp2Δ::kan cps1-191 ade6-M210 leu1-32 ura4-D18 lys131? h?</i>	This Study
YDM6252	<i>nmt1-klp2-FLAG::leu myp2Δ::kan cps1-191 ade6-M210 leu1-32 ura4-D18 lys131? h?</i>	This Study
YDM6253	<i>nmt1-klp2-S2A-FLAG::leu myp2Δ::kan cps1-191 ade6-M210 leu1-32 ura4-D18 lys131? h?</i>	This Study

Table S2. All assigned spectra for Klp2 peptides from LC-MS/MS analysis of GST-Klp2 or Klp2-HATAF

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vitro	8	20	SLTSHLPQSSSSL				100.0%	1342.67	672.58	2
in vitro	8	20	SLTSHLPQSSSSL				99.9%	1342.67	672.62	2
in vitro	8	20	SLTSHLPQSSSSL				100.0%	1342.67	672.60	2
in vitro	8	20	SLTSHLPQSSSSL				100.0%	1342.67	672.56	2
in vitro	8	20	SLTSHLPQSSSSL				99.8%	1342.67	672.32	2
in vitro	8	19	SLTSHLPQSSSS				63.1%	1229.59	616.11	2
in vitro	8	19	SLTSHLPQSSSS				56.1%	1229.59	616.06	2
in vitro	8	18	SLTSHLPQSSS				50.3%	1142.56	572.55	2
in vitro	8	19	SLTSHLPQSSSS				74.9%	1229.59	615.53	2
in vitro	8	19	SLTSHLPQSSSS				57.7%	1229.59	615.36	2
in vitro	8	17	SLTSHLPQSS				100.0%	1055.52	528.74	2
in vitro	8	18	SLTSHLPQSSS				99.2%	1142.56	572.29	2
in vitro	8	17	SLTSHLPQSS				99.9%	1055.52	529.12	2
in vitro	8	16	SLTSHLPQS				61.6%	968.49	484.81	2
in vitro	8	16	SLTSHLPQS				92.1%	968.49	485.27	2
in vitro	8	16	SLTSHLPQS				97.2%	968.49	485.48	2
in vitro	8	18	SLTSHLPQSSS				74.4%	1142.56	572.58	2
in vitro	8	16	SLTSHLPQS				88.2%	968.49	485.19	2
in vitro	8	16	SLTSHLPQS				85.1%	968.49	485.54	2
in vitro	8	16	SLTSHLPQS				99.5%	968.49	485.49	2
in vitro	8	16	SLTSHLPQS				99.9%	968.49	485.23	2
in vitro	8	17	SLTSHLPQSS				52.4%	1055.52	528.54	2
in vitro	10	20	TSHLPQSSSSL				100.0%	1142.56	572.55	2
in vitro	10	20	TSHLPQSSSSL				100.0%	1142.56	572.20	2
in vitro	10	20	TSHLPQSSSSL				100.0%	1142.56	572.58	2
in vitro	10	20	TSHLPQSSSSL				99.8%	1142.56	572.54	2
in vitro	10	20	TSHLPQSSSSL				99.9%	1142.56	572.28	2
in vitro	10	20	TSHLPQSSSSL				100.0%	1142.56	572.56	2
in vitro	10	20	TSHLPQSSSSL				88.3%	1142.56	572.18	2
in vitro	10	20	TSHLPQSSSSL				91.1%	1142.56	572.06	2
in vitro	13	24	LPQSSSSLQSR				96.7%	1275.64	639.14	2
in vitro	14	24	PQSSSSLQSR				100.0%	1162.56	582.47	2
in vitro	25	28	EIAK				97.9%	459.27	460.78	1
in vitro	25	28	EIAK				93.6%	459.27	460.89	1
in vitro	25	28	EIAK				50.4%	459.27	460.67	1
in vitro	25	28	EIAK				68.7%	459.27	460.70	1
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.63	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.32	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.63	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.64	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.36	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.27	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.31	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.65	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.68	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.65	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.61	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.55	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.63	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.65	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.60	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.34	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.55	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.59	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.63	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.28	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	673.10	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.62	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.61	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.61	2
in vitro	29	40	EFTSNIPPPTIK				78.3%	1342.71	673.11	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.58	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.62	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.67	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.62	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.62	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.59	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	673.13	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.55	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.63	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.29	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.63	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.66	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.35	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.56	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.63	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.67	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	673.13	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.63	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.64	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.62	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.33	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	673.21	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.63	2
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.56	2
in vitro	29	40	EFTSNIPPPTIK				91.0%	1342.71	448.93	3
in vitro	29	40	EFTSNIPPPTIK				99.2%	1342.71	672.46	2
in vitro	29	40	EFTSNIPPPTIK				99.8%	1342.71	448.93	3
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.46	2
in vitro	29	40	EFTSNIPPPTIK				93.7%	1342.71	448.95	3
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	672.53	2
in vitro	29	40	EFTSNIPPPTIK				84.0%	1342.71	448.99	3
in vitro	29	40	EFTSNIPPPTIK				100.0%	1342.71	1343.59	1
in vitro	29	40	EFTSNIPPPTIK				50.8%	1342.71	673.42	2
in vitro	31	42	TSNIPPPTIKTN				100.0%	1281.69	642.09	2
in vitro	31	42	TSNIPPPTIKTN				100.0%	1281.69	641.80	2
in vitro	31	42	TSNIPPPTIKTN				100.0%	1281.69	642.10	2
in vitro	31	42	TSNIPPPTIKTN				100.0%	1281.69	642.09	2
in vitro	31	42	TSNIPPPTIKTN				100.0%	1281.69	642.18	2
in vitro	31	47	TSNIPPPTIKTNSSSN				100.0%	1743.86	873.15	2
in vitro	31	42	TSNIPPPTIKTN				100.0%	1281.69	642.03	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.34	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.63	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.62	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.63	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.63	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.33	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.63	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.67	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.65	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.31	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.58	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.66	2
in vitro	41	52	TNSSSSNILEKPR				100.0%	1302.69	652.84	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vitro	41	52	TNSSSSNILKPR				100.0%	1302.69	652.59	2
in vitro	41	52	TNSSSSNILKPR				100.0%	1302.69	652.54	2
in vitro	41	52	TNSSSSNILKPR				100.0%	1302.69	652.60	2
in vitro	41	52	TNSSSSNILKPR				99.9%	1302.69	653.08	2
in vitro	41	52	TNSSSSNILKPR				100.0%	1302.69	435.42	3
in vitro	41	52	TNSSSSNILKPR				98.2%	1302.69	435.83	3
in vitro	41	50	TNSSSSNILK				84.1%	1049.54	526.02	2
in vitro	41	50	TNSSSSNILK				71.6%	1049.54	526.00	2
in vitro	41	52	TNSSSSNILKPR				95.8%	1302.69	435.68	3
in vitro	43	52	SSSSNILKPR				99.9%	1087.60	545.04	2
in vitro	43	52	SSSSNILKPR				100.0%	1087.60	545.18	2
in vitro	43	52	SSSSNILKPR				95.3%	1087.60	545.16	2
in vitro	43	52	SSSSNILKPR				63.0%	1087.60	545.17	2
in vitro	53	66	LSLQNEVNQLKPAK				100.0%	1580.89	528.41	3
in vitro	53	66	LSLQNEVNQLKPAK				99.9%	1580.89	528.40	3
in vitro	53	66	LSLQNEVNQLKPAK				76.7%	1580.89	528.44	3
in vitro	53	66	LSLQNEVNQLKPAK				82.0%	1580.89	528.49	3
in vitro	53	66	LSLQNEVNQLKPAK				100.0%	1580.89	528.10	3
in vitro	53	66	LSLQNEVNQLKPAK				100.0%	1580.89	528.61	3
in vitro	53	66	LSLQNEVNQLKPAK				95.5%	1580.89	528.49	3
in vitro	53	66	LSLQNEVNQLKPAK				100.0%	1580.89	528.68	3
in vitro	53	66	LSLQNEVNQLKPAK				100.0%	1580.89	528.41	3
in vitro	53	66	LSLQNEVNQLKPAK				97.5%	1580.89	528.57	3
in vitro	53	66	LSLQNEVNQLKPAK				100.0%	1580.89	528.42	3
in vitro	53	66	LSLQNEVNQLKPAK				88.9%	1580.89	528.49	3
in vitro	53	66	LSLQNEVNQLKPAK				91.1%	1580.89	791.70	2
in vitro	53	66	LSLQNEVNQLKPAK				72.4%	1580.89	791.75	2
in vitro	53	66	LSLQNEVNQLKPAK				100.0%	1580.89	528.22	3
in vitro	53	66	LSLQNEVNQLKPAK				100.0%	1580.89	528.38	3
in vitro	53	66	LSLQNEVNQLKPAK				89.6%	1580.89	791.72	2
in vitro	53	66	LSLQNEVNQLKPAK				100.0%	1580.89	528.24	3
in vitro	53	66	LSLQNEVNQLKPAK				100.0%	1580.89	528.42	3
in vitro	53	66	LSLQNEVNQLKPAK				94.4%	1580.89	528.68	3
in vitro	53	66	LSLQNEVNQLKPAK				62.9%	1580.89	528.32	3
in vitro	53	66	LSLQNEVNQLKPAK				80.9%	1580.89	791.74	2
in vitro	53	66	LSLQNEVNQLKPAK				100.0%	1580.89	527.90	3
in vitro	53	63	LSLQNEVNQLK				100.0%	1284.70	643.61	2
in vitro	53	63	LSLQNEVNQLK				100.0%	1284.70	643.63	2
in vitro	53	66	LSLQNEVNQLKPAK				83.4%	1580.89	792.20	2
in vitro	53	66	LSLQNEVNQLKPAK				88.8%	1580.89	791.68	2
in vitro	53	66	LSLQNEVNQLKPAK				64.0%	1580.89	528.45	3
in vitro	53	66	LSLQNEVNQLKPAK				90.7%	1580.89	528.31	3
in vitro	53	66	LSLQNEVNQLKPAK				83.5%	1580.89	528.26	3
in vitro	53	66	LSLQNEVNQLKPAK				99.9%	1580.89	528.11	3
in vitro	53	66	LSLQNEVNQLKPAK				94.4%	1580.89	528.71	3
in vitro	53	66	LSLQNEVNQLKPAK				97.5%	1580.89	528.45	3
in vitro	53	66	LSLQNEVNQLKPAK				99.0%	1580.89	528.22	3
in vitro	53	63	LSLQNEVNQLK				99.6%	1284.70	643.79	2
in vitro	56	66	QNEVNQLKPAK				63.1%	1267.69	635.17	2
in vitro	57	66	NEVNQLKPAK				86.5%	1139.63	571.13	2
in vitro	57	66	NEVNQLKPAK				66.2%	1139.63	571.10	2
in vitro	58	66	EVNQLKPAK				98.9%	1025.59	514.08	2
in vitro	71	81	mLPPGSLASVK	M1 Oxidation	100%	1,000.00	77.6%	1114.61	558.30	2
in vitro	71	81	mLPPGSLASVK	M1 Oxidation	100%	1,000.00	81.5%	1114.61	558.24	2
in vitro	71	81	mLPPGSLASVK	M1 Oxidation	100%	1,000.00	95.8%	1114.61	558.33	2
in vitro	71	81	mLPPGSLASVK	M1 Oxidation	100%	1,000.00	79.5%	1114.61	558.50	2
in vitro	71	81	mLPPGSLASVK	M1 Oxidation	100%	1,000.00	79.6%	1114.61	558.51	2
in vitro	71	81	mLPPGSLASVK	M1 Oxidation	100%	1,000.00	71.5%	1114.61	558.51	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vitro	71	81	mLPPGSLASVK	M1 Oxidation	100%	1,000.00	98.6%	1114.61	558.31	2
in vitro	71	81	mLPPGSLASVK	M1 Oxidation	100%	1,000.00	90.5%	1114.61	558.36	2
in vitro	71	81	mLPPGSLASVK	M1 Oxidation	100%	1,000.00	80.7%	1114.61	558.56	2
in vitro	73	81	PPGSLASVK				92.4%	854.49	428.60	2
in vitro	88	99	KARPFTASSNPR				100.0%	1330.71	444.89	3
in vitro	88	99	KARPFTASSNPR				100.0%	1330.71	444.94	3
in vitro	88	99	KARPFTASSNPR				100.0%	1330.71	444.95	3
in vitro	88	99	KARPFTASSNPR				93.0%	1330.71	444.72	3
in vitro	88	99	KARPFTASSNPR				91.9%	1330.71	666.67	2
in vitro	89	99	ARPFTASSNPR				97.3%	1202.62	402.33	3
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	602.39	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	402.23	3
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	602.61	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	402.32	3
in vitro	89	99	ARPFTASSNPR				99.9%	1202.62	602.25	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	602.41	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	602.33	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	602.58	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	602.55	2
in vitro	89	99	ARPFTASSNPR				79.4%	1202.62	402.59	3
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	402.14	3
in vitro	89	99	ARPFTASSNPR				97.6%	1202.62	402.28	3
in vitro	89	99	ARPFTASSNPR				98.9%	1202.62	402.18	3
in vitro	89	99	ARPFTASSNPR				99.9%	1202.62	602.55	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	402.03	3
in vitro	89	99	ARPFTASSNPR				99.9%	1202.62	602.65	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	402.11	3
in vitro	89	99	ARPFTASSNPR				93.6%	1202.62	602.26	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	402.31	3
in vitro	89	99	ARPFTASSNPR				98.6%	1202.62	602.45	2
in vitro	89	99	ARPFTASSNPR				99.3%	1202.62	602.68	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	602.28	2
in vitro	89	99	ARPFTASSNPR				55.2%	1202.62	402.15	3
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	602.29	2
in vitro	89	99	ARPFTASSNPR				99.6%	1202.62	401.81	3
in vitro	89	99	ARPFTASSNPR				89.6%	1202.62	602.56	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	602.63	2
in vitro	89	99	ARPFTASSNPR				96.6%	1202.62	602.63	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	603.25	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	602.75	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	603.24	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	602.46	2
in vitro	89	99	ARPFTASSNPR				99.3%	1202.62	602.61	2
in vitro	89	99	ARPFiASSNPR	T5 Dehydro	98%	20.63	100.0%	1184.61	593.64	2
in vitro	89	99	ARPFTASSNPR				93.2%	1202.62	603.21	2
in vitro	89	99	ARPFTASSNPR				97.8%	1202.62	602.65	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	603.26	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	402.18	3
in vitro	89	99	ARPFTASSNPR				85.7%	1202.62	602.65	2
in vitro	89	110	ARPFiASSNPRmPKsAHPiSSR	T5 Phosphorylation, M12 Oxidation, S15 Phosphorylation	99%, 100%, 90%	22.37, 1,000.00, 12.84	98.4%	2570.16	857.27	3
in vitro	89	99	ARPFTASSNPR				98.5%	1202.62	602.72	2
in vitro	89	99	ARPFTASSNPR				100.0%	1202.62	602.25	2
in vitro	89	99	ARPFiASSNPR	T5 Phosphorylation	100%	24.32	100.0%	1282.58	642.62	2
in vitro	91	99	PFTASSNPR				100.0%	975.48	488.72	2
in vitro	91	99	PFTASSNPR				100.0%	975.48	488.81	2
in vitro	91	99	PFTASSNPR				98.5%	975.48	489.08	2
in vitro	91	99	PFTASSNPR				99.7%	975.48	489.04	2
in vitro	91	99	PFTASSNPR				99.9%	975.48	489.03	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vitro	91	99	PFTASSNPR				100.0%	975.48	488.78	2
in vitro	91	99	PFTASSNPR				100.0%	975.48	488.71	2
in vitro	91	99	PFTASSNPR				99.4%	975.48	489.07	2
in vitro	91	99	PFTASSNPR				99.7%	975.48	489.57	2
in vitro	91	99	PFTASSNPR				99.5%	975.48	489.49	2
in vitro	91	99	PFTASSNPR				99.8%	975.48	489.01	2
in vitro	91	99	PFTASSNPR				98.6%	975.48	487.96	2
in vitro	91	99	PFTASSNPR				78.6%	975.48	488.05	2
in vitro	91	99	PFTASSNPR				95.8%	975.48	487.95	2
in vitro	91	99	PFTASSNPR				100.0%	975.48	489.02	2
in vitro	91	99	PFTASSNPR				100.0%	975.48	489.64	2
in vitro	91	99	PFTASSNPR				100.0%	975.48	489.55	2
in vitro	91	99	PFTASSNPR				100.0%	975.48	488.75	2
in vitro	103	110	SAHPISRR				99.1%	853.44	427.99	2
in vitro	103	110	SAHPISRR				98.0%	853.44	427.96	2
in vitro	103	110	SAHPISRR				99.2%	853.44	427.99	2
in vitro	103	110	SAHPISRR				99.9%	853.44	427.74	2
in vitro	103	110	SAHPISRR				81.0%	853.44	428.03	2
in vitro	103	110	SAHPISRR				99.7%	853.44	428.00	2
in vitro	103	110	SAHPISRR				94.2%	853.44	428.04	2
in vitro	103	110	SAHPISRR				99.9%	853.44	427.75	2
in vitro	103	110	SAHPISRR				99.7%	853.44	427.92	2
in vitro	103	110	SAHPISRR				79.7%	853.44	428.04	2
in vitro	103	110	SAHPISRR				60.6%	853.44	428.01	2
in vitro	103	110	SAHPISRR				96.9%	853.44	427.98	2
in vitro	103	110	SAHPISRR				99.6%	853.44	427.76	2
in vitro	103	110	SAHPISRR				98.8%	853.44	427.95	2
in vitro	103	110	SAHPISRR				94.1%	853.44	427.99	2
in vitro	103	110	SAHPISRR				94.1%	853.44	428.04	2
in vitro	103	110	SAHPISRR				96.3%	853.44	427.91	2
in vitro	103	110	SAHPISRR				83.3%	853.44	427.70	2
in vitro	103	110	SAHPISRR				52.3%	853.44	427.76	2
in vitro	103	110	SAHPISRR				98.6%	853.44	428.01	2
in vitro	103	110	SAHPISRR				100.0%	853.44	427.79	2
in vitro	103	110	SAHPISRR				100.0%	853.44	428.00	2
in vitro	103	110	SAHPISRR				64.0%	853.44	428.06	2
in vitro	103	110	SAHPISRR				64.9%	853.44	428.63	2
in vitro	103	110	SAHPISRR				100.0%	853.44	427.75	2
in vitro	103	110	SAHPISRR				100.0%	853.44	427.74	2
in vitro	103	110	SAHPISRR				86.0%	853.44	427.99	2
in vitro	103	110	SAHPISRR				78.9%	853.44	427.86	2
in vitro	103	110	SAHPISRR				100.0%	853.44	427.98	2
in vitro	103	110	SAHPISRR				64.3%	853.44	428.02	2
in vitro	103	110	SAHPISRR				58.3%	853.44	428.01	2
in vitro	103	110	SAHPISRR				67.2%	853.44	428.01	2
in vitro	103	110	SAHPISRR				65.9%	853.44	427.98	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	39.03	99.9%	1015.48	508.95	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	25.77	100.0%	1015.48	508.95	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	34.65	99.0%	1015.48	508.94	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	93%	11.45	89.5%	1015.48	508.95	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	25.77	97.1%	1015.48	508.93	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	23.3	92.2%	1015.48	508.95	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	23.3	100.0%	1015.48	508.93	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	23.3	100.0%	1015.48	508.94	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	21.4	99.7%	1015.48	508.95	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	18.53	100.0%	1015.48	508.94	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	18.53	99.2%	1015.48	508.98	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	25.77	75.5%	1015.48	508.82	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	z
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	23.3	97.5%	1015.48	508.91	2
in vitro	111	120	SVSASSHFGR				100.0%	1033.49	518.06	2
in vitro	111	120	SVSASSHFGR				100.0%	1033.49	518.06	2
in vitro	111	120	SVSASSHFGR				100.0%	1033.49	517.81	2
in vitro	111	120	SVsASSHFGR	S3 Phosphorylation	100%	25.77	99.6%	1113.46	557.99	2
in vitro	111	120	SVsASSHFGR	S3 Phosphorylation	100%	23.3	92.4%	1113.46	558.00	2
in vitro	111	120	SVsASSHFGR	S3 Phosphorylation	100%	25.77	64.8%	1113.46	557.95	2
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Phosphorylation, S13 Dehydro	0%, 93%	0.00, 17.90	9.6%	2668.19	890.66	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Phosphorylation, S6 Phosphorylation	0%, 99%	0.00, 23.70	7.7%	2766.16	923.27	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S5 Phosphorylation, S6 Dehydro	90%, 97%	22.45, 19.78	6.9%	2668.19	890.68	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Dehydro	20%	7.87	81.5%	2588.22	864.30	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Dehydro	3%	14.04	93.0%	2588.22	864.13	3
in vitro	111	136	sVSASSHFGRPA _s AVSSSLNSSDDVR	S1 Dehydro	0%	0	78.0%	2588.22	864.26	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Dehydro	1%	11.1	68.7%	2588.22	864.14	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Dehydro	72%	9.05	62.0%	2588.22	864.18	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Dehydro	24%	7.39	53.1%	2588.22	864.17	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Dehydro	1%	0	58.6%	2588.22	864.21	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Dehydro	4%	0	32.3%	2588.22	864.28	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Dehydro	4%	0	100.0%	2588.22	864.19	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Phosphorylation, S13 Phosphorylation	21%, 100%	0.00, 24.53	39.1%	2766.16	923.65	3
in vitro	111	136	sVSASSHFGRPA _s AVSSSLNSSDDVR	S1 Phosphorylation	26%	5.71	100.0%	2686.20	897.24	3
in vitro	111	136	sVSASSHFGRPA _s AVSSSLNSSDDVR	S1 Phosphorylation, S13 Phosphorylation	18%, 96%	0.00, 16.36	20.0%	2766.16	923.44	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Phosphorylation	21%	0	100.0%	2686.20	896.84	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Phosphorylation	0%	0	96.1%	2686.20	896.74	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Phosphorylation	47%	8.63	100.0%	2686.20	897.05	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR	S3 Phosphorylation	5%	0	100.0%	2686.20	896.96	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR				100.0%	2606.23	869.98	3
in vitro	111	136	SVsASSHFGRPA _s AVSSSLNSSDDVR				100.0%	2606.23	870.10	3
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	19.84	100.0%	1015.48	509.03	2
in vitro	111	120	SVsASSHFGR	S3 Dehydro	100%	31.37	100.0%	1015.48	509.01	2
in vitro	111	120	SVSASSHFGR				100.0%	1033.49	518.11	2
in vitro	111	120	SVSASSHFGR				100.0%	1033.49	518.10	2
in vitro	119	130	GRPASAVSSSLN				100.0%	1144.58	573.54	2
in vitro	121	136	PASAVSSSLNSSDDVR				100.0%	1590.75	531.61	3
in vitro	121	136	PASAVSSSLNSSDDVR				100.0%	1590.75	796.65	2
in vitro	121	136	PASAVSSSLNSSDDVR				100.0%	1590.75	796.64	2
in vitro	121	136	PASAVSSSLNSSDDVR				100.0%	1590.75	796.62	2
in vitro	121	136	PASAVSSSLNSSDDVR				100.0%	1590.75	796.74	2
in vitro	121	136	PA _s AVSSSLNSSDDVR	S3 Phosphorylation	56%	5.77	100.0%	1670.71	836.12	2
in vitro	137	150	SmSDESmESYNDEK	M2 Oxidation	100%	139.79	100.0%	1666.60	834.53	2
in vitro	137	150	SmSDESmESYNDEK	M2 Oxidation, M7 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1682.59	842.54	2
in vitro	137	150	SmSDESmESYNDEK	M2 Oxidation, M7 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1682.59	842.59	2
in vitro	137	150	SMSDESmESYNDEK	M7 Oxidation	100%	115.97	100.0%	1666.60	834.51	2
in vitro	147	157	NDEKSVNASAL				100.0%	1146.55	574.54	2
in vitro	147	157	NDEKSVNASAL				100.0%	1146.55	574.48	2
in vitro	151	158	SVNASALR				98.0%	816.45	409.11	2
in vitro	151	158	SVNASALR				92.4%	816.45	409.62	2
in vitro	151	158	SVNASALR				93.6%	816.45	409.45	2
in vitro	151	158	SVNASALR				96.1%	816.45	409.46	2
in vitro	151	158	SVNASALR				97.9%	816.45	409.51	2
in vitro	151	158	SVNASALR				97.5%	816.45	409.24	2
in vitro	151	158	SVNASALR				86.2%	816.45	409.47	2
in vitro	151	158	SVNASALR				98.1%	816.45	409.28	2
in vitro	151	158	SVNASALR				72.9%	816.45	409.49	2
in vitro	151	158	SVNASALR				100.0%	816.45	409.52	2
in vitro	151	158	SVNASALR				50.2%	816.45	409.33	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.54	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.58	2

Table S2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	z
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.52	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.57	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.59	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.56	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.67	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.57	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.55	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.55	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	682.10	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	99.9%	1360.60	681.78	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	96.9%	1360.60	682.22	2
in vitro	166	177	SMEemAYAQLSAK	M4 Oxidation	100%	52.04	100.0%	1344.61	673.64	2
in vitro	166	177	SMEemAYAQLSAK	M4 Oxidation	100%	52.04	100.0%	1344.61	673.36	2
in vitro	166	177	SmEMAYAQLSAK	M2 Oxidation	100%	67.96	100.0%	1344.61	673.65	2
in vitro	166	177	SMEemAYAQLSAK				100.0%	1328.61	665.75	2
in vitro	166	177	SMEemAYAQLSAK				100.0%	1328.61	666.23	2
in vitro	166	177	SMEemAYAQLSAK				96.4%	1328.61	666.03	2
in vitro	166	177	SMEemAYAQLSAK				100.0%	1328.61	666.30	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.70	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.62	2
in vitro	166	177	SMEemAYAQLSAK				99.1%	1328.61	666.39	2
in vitro	166	177	SMEemAYAQLSAK				99.7%	1328.61	665.10	2
in vitro	166	177	SMEemAYAQLSAK				99.9%	1328.61	666.33	2
in vitro	166	177	SMEemAYAQLSAK				100.0%	1328.61	665.90	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1360.60	681.62	2
in vitro	166	177	SmEmAYAQLSAK	M2 Oxidation, M4 Oxidation	100%, 100%	1,000.00, 1,000.00	93.9%	1360.60	682.01	2
in vitro	175	183	SAKVIPSPS				100.0%	884.50	443.27	2
in vitro	175	183	SAKVIPSPS				77.1%	884.50	443.53	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.11	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.27	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.49	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.15	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	717.85	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.18	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.08	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.05	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.10	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.03	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.12	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.14	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	717.90	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	717.77	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	717.77	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	717.93	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.04	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.17	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	717.67	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	99.3%	1433.71	718.56	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	717.50	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.17	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.14	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.19	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.26	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.13	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	91.7%	1433.71	718.65	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	98.7%	1433.71	718.48	2
in vitro	196	207	IAmLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	479.26	3

Table S2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.20	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.41	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.64	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.39	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.28	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.68	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.24	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.21	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.25	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.83	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.26	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.23	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.27	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.73	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	709.71	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	709.92	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.27	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.30	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.55	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.26	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.34	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.92	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.46	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.06	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.08	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.30	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.21	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.74	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	709.94	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.27	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.42	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.21	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.79	2
in vitro	196	207	IAMLEESLEVER				61.8%	1417.71	710.18	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	99.2%	1433.71	718.79	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.28	2
in vitro	196	207	IAMLEESLEVER				100.0%	1417.71	710.83	2
in vitro	196	207	IAMLEESLEVER				99.8%	1417.71	710.25	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	100.0%	1433.71	718.22	2
in vitro	196	207	IAMLEESLEVER	M3 Oxidation	100%	1,000.00	77.8%	1433.71	718.82	2
in vitro	204	222	EVERSRTSELQEQFSVALR				100.0%	2263.16	754.72	3
in vitro	204	222	EVERSRTSELQEQFSVALR				100.0%	2263.16	754.65	3
in vitro	204	222	EVERSRTSELQEQFSVALR				100.0%	2263.16	754.61	3
in vitro	204	222	EVERSRTSELQEQFSVALR				100.0%	2263.16	754.74	3
in vitro	204	222	EVERSRTSELQEQFSVALR				88.7%	2263.16	754.64	3
in vitro	204	222	EVERSRTSELQEQFSVALR				100.0%	2263.16	754.60	3
in vitro	204	222	EVERSRTSELQEQFSVALR				99.5%	2263.16	755.16	3
in vitro	204	222	EVERSRTSELQEQFSVALR				99.9%	2263.16	754.60	3
in vitro	204	222	EVERSRTSELQEQFSVALR				96.7%	2263.16	754.72	3
in vitro	204	222	EVERSRTSELQEQFSVALR				74.1%	2263.16	754.77	3
in vitro	204	222	EVERSRTSELQEQFSVALR				87.5%	2263.16	754.66	3
in vitro	204	222	EVERSRTSELQEQFSVALR				99.4%	2263.16	755.12	3
in vitro	204	222	EVERSRTSELQEQFSVALR				51.5%	2263.16	754.71	3
in vitro	204	222	EVERSRTSELQEQFSVALR				68.3%	2263.16	754.67	3
in vitro	204	222	EVERSRTSELQEQFSVALR				92.5%	2263.16	754.64	3
in vitro	204	222	EVERSRTSELQEQFSVALR				100.0%	2263.16	755.09	3
in vitro	204	222	EVERSRTSELQEQFSVALR				100.0%	2263.16	754.69	3
in vitro	204	222	EVERSRTSELQEQFSVALR				65.3%	2263.16	754.70	3

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vitro	204	222	EVERSRTSELQEQFSVALR				100.0%	2263.16	754.66	3
in vitro	204	222	EVERSRTSELQEQFSVALR				59.0%	2263.16	754.73	3
in vitro	204	222	EVERSRTSELQEQFSVALR				99.6%	2263.16	754.73	3
in vitro	204	222	EVERSRTSELQEQFSVALR				82.2%	2263.16	754.68	3
in vitro	204	222	EVERSRTSELQEQFSVALR				93.0%	2263.16	754.65	3
in vitro	204	222	EVERSRTSELQEQFSVALR				61.7%	2263.16	754.63	3
in vitro	204	222	EVERSRTSELQEQFSVALR				58.0%	2263.16	754.69	3
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.67	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.64	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.72	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.77	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.61	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.60	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.59	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.66	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.74	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.68	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.69	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.64	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.28	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.65	2
in vitro	210	222	TSELQEQFSVALR				99.7%	1506.77	755.17	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.44	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.09	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.37	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.18	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.68	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.23	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.51	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.73	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.70	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.63	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.12	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.20	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.60	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.37	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.21	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.37	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.14	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.71	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.31	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.16	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.67	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.23	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.69	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.72	2
in vitro	210	222	TSELQEQFSVALR				99.9%	1506.77	755.25	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.72	2
in vitro	210	222	TSELQEQFSVALR				99.1%	1506.77	754.73	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.12	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.66	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.06	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.65	2
in vitro	210	222	TSELQEQFSVALR				92.4%	1506.77	754.67	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.64	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.12	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.64	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.09	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vitro	210	222	TSELQEQFSVALR				93.7%	1506.77	754.65	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	503.62	3
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.31	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.57	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.76	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.52	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.57	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.83	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.26	2
in vitro	210	222	TSELQEQFSVALR				99.9%	1506.77	755.41	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.75	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	503.46	3
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.81	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.82	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.44	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.27	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.77	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.75	2
in vitro	210	222	TSELQEQFSVALR				72.0%	1506.77	755.27	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.74	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.85	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.81	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.84	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.90	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	755.02	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.76	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.77	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.77	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.75	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.60	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.96	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.79	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.59	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.86	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	503.83	3
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	503.86	3
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.77	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.72	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.63	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.74	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.98	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.78	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.88	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.25	2
in vitro	210	222	TSELQEQFSVALR				99.1%	1506.77	754.42	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.79	2
in vitro	210	222	TSELQEQFSVALR				99.6%	1506.77	754.96	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.38	2
in vitro	210	222	TSELQEQFSVALR				100.0%	1506.77	754.70	2
in vitro	210	222	TSELQEQFSVALR				83.2%	1506.77	754.73	2
in vitro	210	222	TSELQEQFSVALR				54.3%	1506.77	755.61	2
in vitro	232	236	IVSQK				99.0%	573.35	574.36	1
in vitro	237	249	GmESLEImLNSmK	M2 Oxidation, M8 Oxidation, M12 Oxidator	100%, 100%, 100%	1,000.00, 1,000.00, 1,000.00	100.0%	1529.68	766.11	2
in vitro	237	249	GmESLEImLNSmK	M2 Oxidation, M8 Oxidation, M12 Oxidator	100%, 100%, 100%	1,000.00, 1,000.00, 1,000.00	100.0%	1529.68	766.61	2
in vitro	237	249	GmESLEImLNSmK	M2 Oxidation, M8 Oxidation, M12 Oxidator	100%, 100%, 100%	1,000.00, 1,000.00, 1,000.00	100.0%	1529.68	766.08	2
in vitro	237	249	GmESLEImLNSmK	M2 Oxidation, M8 Oxidation, M12 Oxidator	100%, 100%, 100%	1,000.00, 1,000.00, 1,000.00	100.0%	1529.68	766.16	2
in vitro	237	248	GmESLEImLNsM	M2 Oxidation, M8 Oxidation, S11 Phosphorylator	100%, 100%, 100%	138.38, 42.22, 110.43	95.7%	1465.55	734.12	2
in vitro	237	248	GmESLEImLNsM	M2 Oxidation, M8 Oxidation, S11 Phosphorylator	100%, 100%, 100%	122.50, 45.04, 102.29	75.5%	1465.55	734.10	2

Table S2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	z
in vitro	237	248	GmESLEImLNsM	M2 Oxidation, M8 Oxidation, S11 Phosphorylator	100%, 100%, 100%	119.04, 29.53, 93.60	100.0%	1465.55	734.09	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.82	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.51	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.75	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.78	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.25	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	741.66	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.29	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.39	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.00	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.72	2
in vitro	237	249	GmESLEImLNSMK	M2 Oxidation, M8 Oxidation	100%, 100%	235.31, 121.83	100.0%	1513.68	758.32	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.72	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.15	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.15	2
in vitro	237	249	GmESLEImLNSMK	M2 Oxidation, M8 Oxidation	100%, 100%	181.58, 88.98	100.0%	1513.68	758.28	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.31	2
in vitro	237	249	GMESLEIMLNSmK	M12 Oxidation	100%	56.53	100.0%	1497.69	500.53	3
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	741.93	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	495.32	3
in vitro	237	249	GmESLEImLNSMK	M2 Oxidation, M8 Oxidation	100%, 100%	207.31, 111.84	100.0%	1513.68	758.34	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	741.97	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	741.87	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.21	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.05	2
in vitro	237	249	GmESLEIMLNSMK	M2 Oxidation	100%	81.36	69.7%	1497.69	750.34	2
in vitro	237	249	GMESLEIMLNSmK	M12 Oxidation	100%	160	100.0%	1497.69	750.32	2
in vitro	237	249	GMESLEIMLNSmK	M12 Oxidation	100%	160	99.9%	1497.69	750.19	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	495.40	3
in vitro	237	249	GMESLEIMLNSmK	M12 Oxidation	100%	160	100.0%	1497.69	750.17	2
in vitro	237	249	GMESLEImLNSMK	M8 Oxidation	100%	88.83	90.3%	1497.69	749.88	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	742.11	2
in vitro	237	249	GmESLEIMLNSMK	M2 Oxidation	100%	81.36	100.0%	1497.69	750.08	2
in vitro	237	249	GMESLEIMLNSmK	M12 Oxidation	100%	135.92	100.0%	1497.69	750.24	2
in vitro	237	249	GMESLEImLNSmK	M8 Oxidation, M12 Oxidation	100%, 100%	66.66, 158.18	100.0%	1513.68	758.81	2
in vitro	237	249	GMESLEIMLNSmK	M12 Oxidation	100%	160	100.0%	1497.69	750.13	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	495.30	3
in vitro	237	249	GmESLEImLNSMK	M2 Oxidation, M8 Oxidation	100%, 100%	126.19, 46.35	100.0%	1513.68	758.27	2
in vitro	237	249	GMESLEImLNSMK	M8 Oxidation	100%	80.45	100.0%	1497.69	750.38	2
in vitro	237	249	GmESLEIMLNSMK	M2 Oxidation	100%	82.63	100.0%	1497.69	750.71	2
in vitro	237	249	GMESLEIMLNSmK	M12 Oxidation	100%	109.97	91.4%	1497.69	750.88	2
in vitro	237	249	GmESLEIMLNSmK	M2 Oxidation, M12 Oxidation	100%, 100%	63.05, 97.69	100.0%	1513.68	757.75	2
in vitro	237	249	GMESLEIMLNSMK				100.0%	1481.69	1482.99	1
in vitro	237	249	GMESLEIMLNSmK	M12 Oxidation	100%	106.29	99.6%	1497.69	750.15	2
in vitro	237	249	GMESLEIMLNSMK				61.9%	1481.69	495.33	3
in vitro	256	265	MAMLEENHAR				100.0%	1200.54	601.40	2
in vitro	256	265	MAMLEENHAR				100.0%	1200.54	602.40	2
in vitro	256	265	MAMLEENHAR				100.0%	1200.54	601.61	2
in vitro	256	265	MAMLEENHAR				100.0%	1200.54	601.56	2
in vitro	256	265	MAMLEENHAR				100.0%	1200.54	601.72	2
in vitro	256	265	MAMLEENHAR				100.0%	1200.54	601.68	2
in vitro	256	265	MAMLEENHAR				100.0%	1200.54	601.69	2
in vitro	256	265	MAMLEENHAR				100.0%	1200.54	601.66	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	100%	30.83	100.0%	1216.53	609.64	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	100%	33.18	100.0%	1216.53	609.60	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	100%	33.18	100.0%	1216.53	609.58	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	100%	45.01	100.0%	1216.53	609.37	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	99%	22.85	100.0%	1216.53	610.14	2

Table S2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	z
in vitro	256	265	mAMLEENHAR	M1 Oxidation	100%	26.31	100.0%	1216.53	609.60	2
in vitro	256	265	MAmLEENHAR	M3 Oxidation	97%	14.64	100.0%	1216.53	609.62	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	100%	27.16	100.0%	1216.53	609.80	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	100%	26.31	100.0%	1216.53	610.16	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	94%	12.19	100.0%	1216.53	610.12	2
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	617.47	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	100%	26.31	100.0%	1216.53	609.55	2
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	617.31	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	96%	13.67	100.0%	1216.53	609.46	2
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	617.61	2
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	618.18	2
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	617.66	2
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	617.60	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	618.15	2
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	617.63	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	100%	23.47	100.0%	1216.53	406.87	3
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	617.59	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	100%	26.92	100.0%	1216.53	406.65	3
in vitro	256	265	MAMLEENHAR				100.0%	1200.54	401.63	3
in vitro	256	265	MAmLEENHAR	M3 Oxidation	100%	35.79	99.8%	1216.53	407.02	3
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	99.7%	1232.53	617.69	2
in vitro	256	265	MAMLEENHAR				99.5%	1200.54	401.71	3
in vitro	256	265	MAMLEENHAR				99.9%	1200.54	401.66	3
in vitro	256	265	mAMLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	95.1%	1232.53	412.32	3
in vitro	256	265	MAmLEENHAR	M3 Oxidation	100%	35.79	100.0%	1216.53	406.62	3
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	412.36	3
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	97.1%	1232.53	412.30	3
in vitro	256	265	mAMLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	617.62	2
in vitro	256	265	mAMLEENHAR	M1 Oxidation	99%	15.53	94.2%	1216.53	609.94	2
in vitro	256	265	MAMLEENHAR	M3 Oxidation	100%	35.79	95.7%	1216.53	406.99	3
in vitro	256	265	MAMLEENHAR				100.0%	1200.54	401.47	3
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	617.57	2
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	99.9%	1232.53	412.22	3
in vitro	256	265	mAMLEENHAR	M1 Oxidation	57%	11.71	50.6%	1216.53	406.78	3
in vitro	256	265	mAMLEENHAR	M1 Oxidation	78%	5.47	86.9%	1216.53	609.89	2
in vitro	256	265	MAMLEENHAR				100.0%	1200.54	401.52	3
in vitro	256	265	MAMLEENHAR				100.0%	1200.54	401.20	3
in vitro	256	265	MAMLEENHAR	M3 Oxidation	100%	35.79	58.7%	1216.53	407.05	3
in vitro	256	265	MAMLEENHAR				87.6%	1200.54	401.49	3
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	411.99	3
in vitro	256	265	MAMLEENHAR				52.0%	1200.54	401.23	3
in vitro	256	265	mAmLEENHAR	M1 Oxidation, M3 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1232.53	412.16	3
in vitro	256	265	mAMLEENHAR	M1 Oxidation	99%	21.94	99.9%	1216.53	1217.71	1
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	893.14	3
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	893.04	3
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	893.12	3
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	893.00	3
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	893.24	3
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	892.94	3
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	893.06	3
in vitro	266	288	VMETAELQHQAELQDFASNIEQK				100.0%	2658.26	1330.96	2
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	893.10	3
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	892.87	3
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	893.14	3
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	892.99	3
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	893.04	3
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	893.11	3
in vitro	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	892.80	3

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vitro	266	288	VmETAELQHQAEQLQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	893.17	3
in vitro	266	288	VmETAELQHQAEQLQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	892.85	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	1330.59	2
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.48	3
in vitro	266	288	VmETAELQHQAEQLQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	892.99	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.79	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.52	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.73	3
in vitro	266	288	VmETAELQHQAEQLQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	892.78	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.77	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.54	3
in vitro	266	288	VmETAELQHQAEQLQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	892.92	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.61	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.57	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.59	3
in vitro	266	288	VmETAELQHQAEQLQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	892.69	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.76	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.42	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.55	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.63	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.25	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.68	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.72	3
in vitro	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.41	3
in vitro	266	288	VmETAELQHQAEQLQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	892.81	3
in vivo-OFF	289	310	ANSLImEYKNELQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	100.0%	2620.22	874.84	3
in vivo-OFF	289	310	ANSLImEYKNELQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	100.0%	2620.22	874.98	3
in vivo-OFF	289	310	ANSLIMEYKNELQSAEEHFHSHK				100.0%	2604.23	869.81	3
in vivo-OFF	289	310	ANSLIMEYKNELQSAEEHFHSHK				100.0%	2604.23	869.31	3
in vivo-OFF	297	307	KNELQSAEEHF				100.0%	1330.62	444.87	3
in vivo-OFF	297	307	KNELQSAEEHF				98.1%	1330.62	444.84	3
in vivo-OFF	298	307	NELQSAEEHF				94.0%	1202.52	602.13	2
in vivo-OFF	298	307	NELQSAEEHF				99.4%	1202.52	602.06	2
in vivo-OFF	298	307	NELQSAEEHF				96.0%	1202.52	602.04	2
in vivo-OFF	298	310	NELQSAEEHFHSHK				100.0%	1554.71	778.21	2
in vivo-OFF	298	307	NELQSAEEHF				92.7%	1202.52	601.93	2
in vivo-OFF	298	310	NELQSAEEHFHSHK				100.0%	1554.71	778.30	2
in vivo-OFF	298	310	NELQSAEEHFHSHK				100.0%	1554.71	779.08	2
in vivo-OFF	298	310	NELQSAEEHFHSHK				100.0%	1554.71	778.73	2
in vivo-OFF	298	310	NELQSAEEHFHSHK				100.0%	1554.71	778.79	2
in vivo-OFF	298	310	NELQSAEEHFHSHK				100.0%	1554.71	778.75	2
in vivo-OFF	298	310	NELQSAEEHFHSHK				100.0%	1554.71	778.73	2
in vivo-OFF	311	321	IKELTSENELK				100.0%	1302.70	652.63	2
in vivo-OFF	311	321	IKELTSENELK				100.0%	1302.70	652.30	2
in vivo-OFF	311	321	IKELTSENELK				99.6%	1302.70	435.63	3
in vivo-OFF	311	321	IKELTSENELK				100.0%	1302.70	435.57	3
in vivo-OFF	311	321	IKELTSENELK				99.7%	1302.70	435.43	3
in vivo-OFF	311	321	IKELTSENELK				100.0%	1302.70	652.67	2
in vivo-OFF	311	321	IKELTSENELK				100.0%	1302.70	652.76	2
in vivo-OFF	311	321	IKELTSENELK				100.0%	1302.70	435.74	3
in vivo-OFF	311	321	IKELTSENELK				100.0%	1302.70	435.58	3
in vivo-OFF	311	321	IKELTSENELK				99.7%	1302.70	435.51	3
in vivo-OFF	311	321	IKELTSENELK				100.0%	1302.70	1303.77	1
in vivo-OFF	325	334	LQEEKDSSLK				99.9%	1201.66	402.02	3
in vivo-OFF	325	335	LQEEKDSSLKK				100.0%	1329.75	666.27	2
in vivo-OFF	325	335	LQEEKDSSLKK				98.9%	1329.75	666.13	2
in vivo-OFF	335	346	KVQEGASLAMQR				100.0%	1316.69	440.11	3
in vivo-OFF	335	346	KVQEGASLAMQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	667.77	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-OFF	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	445.75	3
in vivo-OFF	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.59	2
in vivo-OFF	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.66	2
in vivo-OFF	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	97.0%	1204.59	403.00	3
in vivo-OFF	336	346	VQEGASLAmQR				100.0%	1188.59	595.40	2
in vivo-OFF	336	346	VQEGASLAmQR				100.0%	1188.59	595.37	2
in vivo-OFF	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.67	2
in vivo-OFF	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.56	2
in vivo-OFF	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.63	2
in vivo-OFF	336	346	VQEGASLAmQR				100.0%	1188.59	595.59	2
in vivo-OFF	336	346	VQEGASLAmQR				100.0%	1188.59	596.26	2
in vivo-OFF	336	346	VQEGASLAmQR				100.0%	1188.59	595.24	2
in vivo-OFF	336	346	VQEGASLAmQR				80.3%	1188.59	595.29	2
in vivo-OFF	336	346	VQEGASLAmQR				99.9%	1188.59	1189.93	1
in vivo-OFF	336	346	VQEGASLAmQR				100.0%	1188.59	1189.65	1
in vivo-OFF	347	355	VQNKHDLEK				100.0%	1109.58	556.12	2
in vivo-OFF	347	355	VQNKHDLEK				97.4%	1109.58	556.72	2
in vivo-OFF	347	355	VQNKHDLEK				99.9%	1109.58	556.71	2
in vivo-OFF	347	355	VQNKHDLEK				100.0%	1109.58	556.15	2
in vivo-OFF	351	373	HDLEKKRLQSAIQPLQEENNSLK				100.0%	2717.45	906.53	3
in vivo-OFF	351	373	HDLEKKRLQSAIQPLQEENNSLK				100.0%	2717.45	906.92	3
in vivo-OFF	351	373	HDLEKKRLQSAIQPLQEENNSLK				100.0%	2717.45	906.64	3
in vivo-OFF	351	373	HDLEKKRLQSAIQPLQEENNSLK				100.0%	2717.45	906.76	3
in vivo-OFF	351	373	HDLEKKRLQSAIQPLQEENNSLK				100.0%	2717.45	906.77	3
in vivo-OFF	357	373	RLQSAIQPLQEENNSLK				100.0%	1967.04	985.16	2
in vivo-OFF	357	373	RLQSAIQPLQEENNSLK				100.0%	1967.04	984.76	2
in vivo-OFF	357	373	RLQSAIQPLQEENNSLK				100.0%	1967.04	984.79	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	605.29	3
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	605.13	3
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.78	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.72	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	907.20	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				99.2%	1810.94	906.84	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.69	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				98.1%	1810.94	907.25	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				97.3%	1810.94	907.21	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.27	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.66	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.92	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.80	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	907.43	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	907.22	2
in vivo-OFF	358	381	LQSAIQPLQEENNSLKQQIEQLQR				100.0%	2834.49	946.53	3
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.74	2
in vivo-OFF	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	1812.30	1
in vivo-OFF	374	381	QQIEQLQR				64.2%	1041.56	1042.73	1
in vivo-OFF	374	381	QQIEQLQR				64.7%	1041.56	1042.68	1
in vivo-OFF	382	390	ELASETVVK				100.0%	974.53	488.49	2
in vivo-OFF	382	390	ELASETVVK				99.4%	974.53	488.51	2
in vivo-OFF	382	390	ELASETVVK				61.6%	974.53	488.57	2
in vivo-OFF	382	390	ELASETVVK				89.3%	974.53	488.50	2
in vivo-OFF	382	390	ELASETVVK				99.7%	974.53	488.53	2
in vivo-OFF	382	390	ELASETVVK				98.4%	974.53	488.53	2
in vivo-OFF	382	394	ELASETVVKENLK				97.1%	1458.79	487.66	3
in vivo-OFF	382	394	ELASETVVKENLK				87.8%	1458.79	487.62	3
in vivo-OFF	395	406	SSLDQQSANVQK				100.0%	1303.64	653.10	2
in vivo-OFF	395	406	SSLDQQSANVQK				100.0%	1303.64	653.13	2
in vivo-OFF	395	406	SSLDQQSANVQK				100.0%	1303.64	653.10	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	z
in vivo-OFF	395	406	SSLDQQSANVQK				70.4%	1303.64	653.65	2
in vivo-OFF	395	406	SSLDQQSANVQK				100.0%	1303.64	653.13	2
in vivo-OFF	420	429	TLEEDVYmK	M9 Oxidation	100%	1,000.00	100.0%	1243.56	623.54	2
in vivo-OFF	420	429	TLEEDVYmK	M9 Oxidation	100%	1,000.00	100.0%	1243.56	622.93	2
in vivo-OFF	420	429	TLEEDVYTMK				100.0%	1227.57	615.28	2
in vivo-OFF	432	440	IIELEGILK				100.0%	1026.63	1027.53	1
in vivo-OFF	432	440	IIELEGILK				100.0%	1026.63	514.54	2
in vivo-OFF	432	440	IIELEGILK				85.5%	1026.63	514.58	2
in vivo-OFF	432	440	IIELEGILK				100.0%	1026.63	514.64	2
in vivo-OFF	447	452	DGLVEK				99.7%	659.35	660.34	1
in vivo-OFF	453	460	LIAEETLR				100.0%	943.53	472.72	2
in vivo-OFF	453	460	LIAEETLR				100.0%	943.53	473.08	2
in vivo-OFF	453	460	LIAEETLR				99.9%	943.53	472.79	2
in vivo-OFF	453	460	LIAEETLR				100.0%	943.53	473.04	2
in vivo-OFF	453	460	LIAEETLR				85.2%	943.53	946.62	1
in vivo-OFF	453	460	LIAEETLR				100.0%	943.53	944.62	1
in vivo-OFF	462	471	KLHNTIQELK				100.0%	1222.70	408.94	3
in vivo-OFF	462	471	KLHNTIQELK				100.0%	1222.70	408.88	3
in vivo-OFF	462	471	KLHNTIQELK				100.0%	1222.70	408.94	3
in vivo-OFF	462	471	KLHNTIQELK				99.0%	1222.70	612.14	2
in vivo-OFF	462	471	KLHNTIQELK				100.0%	1222.70	612.77	2
in vivo-OFF	462	471	KLHNTIQELK				100.0%	1222.70	612.88	2
in vivo-OFF	462	471	KLHNTIQELK				100.0%	1222.70	612.52	2
in vivo-OFF	462	471	KLHNTIQELK				100.0%	1222.70	612.83	2
in vivo-OFF	462	471	KLHNTIQELK				100.0%	1222.70	612.49	2
in vivo-OFF	462	471	KLHNTIQELK				100.0%	1222.70	612.60	2
in vivo-OFF	462	471	KLHNTIQELK				100.0%	1222.70	409.09	3
in vivo-OFF	462	471	KLHNTIQELK				100.0%	1222.70	408.96	3
in vivo-OFF	522	529	QYAFNFDR				100.0%	1059.48	1060.43	1
in vivo-OFF	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	853.83	2
in vivo-OFF	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	94.27	100.0%	1720.79	861.81	2
in vivo-OFF	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	853.79	2
in vivo-OFF	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	104.48	100.0%	1720.79	861.53	2
in vivo-OFF	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	869.79	2
in vivo-OFF	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	854.35	2
in vivo-OFF	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	853.81	2
in vivo-OFF	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	870.28	2
in vivo-OFF	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	58.16	100.0%	1720.79	861.84	2
in vivo-OFF	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	102.92	100.0%	1720.79	862.31	2
in vivo-OFF	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	968.47	3
in vivo-OFF	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1030.01	3
in vivo-OFF	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1451.85	2
in vivo-OFF	671	683	SVAATNANEHSSR				100.0%	1342.62	672.67	2
in vivo-OFF	671	683	SVAATNANEHSSR				100.0%	1342.62	672.76	2
in vivo-OFF	684	704	SHSVFmLHLNGSNSTTGETcR	C20 Iodoacetamide derivative	100%	1,000.00	100.0%	2334.05	779.63	3
in vivo-OFF	684	704	SHSVFmLHLNGSNSTTGETcR	C20 Iodoacetamide derivative	100%	1,000.00	100.0%	2334.05	779.66	3
in vivo-OFF	684	704	SHSVFmLHLNGSNSTTGETcR	M6 Oxidation, C20 Iodoacetamide derivative	100%, 100%	1,000.00, 1,000.00	100.0%	2350.04	784.84	3
in vivo-OFF	705	717	STLNLIDLAGSER				100.0%	1387.73	695.25	2
in vivo-OFF	705	717	STLNLIDLAGSER				100.0%	1387.73	695.32	2
in vivo-OFF	705	717	STLNLIDLAGSER				99.9%	1387.73	695.34	2
in vivo-OFF	705	717	STLNLIDLAGSER				100.0%	1387.73	1388.81	1
in vivo-OFF	708	718	NLIDLAGSERL				100.0%	1199.65	601.13	2
in vivo-OFF	708	718	NLIDLAGSERL				100.0%	1199.65	600.81	2
in vivo-OFF	708	718	NLIDLAGSERL				78.3%	1199.65	600.77	2
in vivo-OFF	718	727	LSSSQSVGER				100.0%	1048.51	525.53	2
in vivo-OFF	718	727	LSSSQSVGER				100.0%	1048.51	525.53	2
in vivo-OFF	718	727	LSSSQSVGER				100.0%	1048.51	525.30	2
in vivo-OFF	718	727	LSSSQSVGER				100.0%	1048.51	525.50	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	z
in vivo-OFF	718	727	LSSSQSVGER				100.0%	1048.51	525.72	2
in vivo-OFF	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	7%	0	83.5%	2420.18	807.84	3
in vivo-OFF	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	86%	8.26	83.2%	2420.18	807.85	3
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.94	2
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.79	2
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	808.44	2
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.85	2
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	808.35	2
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.84	2
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.49	2
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.62	2
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.96	2
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	808.24	2
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	808.35	2
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	808.24	2
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.08	3
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	538.97	3
in vivo-OFF	737	752	SLScLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.26	3
in vivo-OFF	771	779	SLGGNSKTL				99.7%	875.47	438.99	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.15	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.11	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.14	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	639.88	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	639.82	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.14	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.28	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.23	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.25	2
in vivo-OFF	778	788	TLmFVNISPLK				100.0%	1261.71	632.79	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.78	2
in vivo-OFF	778	788	TLmFVNISPLK				100.0%	1261.71	632.75	2
in vivo-OFF	778	788	TLmFVNISPLK				100.0%	1261.71	632.74	2
in vivo-OFF	778	788	TLmFVNISPLK				100.0%	1261.71	631.91	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	639.97	2
in vivo-OFF	778	788	TLmFVNISPLK				99.8%	1261.71	632.68	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.00	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.72	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.24	2
in vivo-OFF	778	788	TLmFVNISPLK				99.3%	1261.71	632.84	2
in vivo-OFF	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	99.9%	1277.71	640.26	2
in vivo-OFF	788	795	KQHPETL				99.8%	950.52	476.22	2
in vivo-OFF	789	799	QHVPETLcSLR	C8 Iodoacetamide derivative	100%	1,000.00	96.1%	1338.67	670.77	2
in vivo-OFF	789	799	QHVPETLcSLR	C8 Iodoacetamide derivative	100%	1,000.00	52.8%	1338.67	670.84	2
in vivo-OFF	789	799	QHVPETLcSLR	C8 Iodoacetamide derivative	100%	1,000.00	93.7%	1338.67	670.63	2
in vivo-OFF	800	803	FATK				52.6%	465.26	466.41	1
in vivo-OFF	804	813	VNNTQIGTAR				100.0%	1072.56	537.47	2
in vivo-OFF	804	813	VNNTQIGTAR				100.0%	1072.56	537.62	2
in vivo-OFF	804	813	VNNTQIGTAR				100.0%	1072.56	537.75	2
in vivo-ON	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	893.12	3
in vivo-ON	266	288	VMETAELQHQAELQDFASNIEQK				100.0%	2658.26	887.83	3
in vivo-ON	266	288	VMETAELQHQAELQDFASNIEQK				100.0%	2658.26	887.39	3
in vivo-ON	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	1339.04	2
in vivo-ON	266	288	VMETAELQHQAELQDFASNIEQK				100.0%	2658.26	887.90	3
in vivo-ON	266	288	VMETAELQHQAELQDFASNIEQK				100.0%	2658.26	887.38	3
in vivo-ON	266	288	VMETAELQHQAELQDFASNIEQK				100.0%	2658.26	887.55	3
in vivo-ON	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	99.7%	2674.25	892.76	3
in vivo-ON	266	288	VmETAELQHQAELQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	1338.56	2
in vivo-ON	266	288	VMETAELQHQAELQDFASNIEQK				56.2%	2658.26	887.59	3

Table S2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	266	288	VmETAELQHQAEQLQDFASNIEQK	M2 Oxidation	100%	1,000.00	100.0%	2674.25	892.84	3
in vivo-ON	266	288	VMETAELQHQAEQLQDFASNIEQK				99.8%	2658.26	887.66	3
in vivo-ON	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.50	3
in vivo-ON	266	288	VMETAELQHQAEQLQDFASNIEQK				99.8%	2658.26	887.85	3
in vivo-ON	266	288	VMETAELQHQAEQLQDFASNIEQK				100.0%	2658.26	887.38	3
in vivo-ON	274	288	HQAEQLQDFASNIEQK				100.0%	1756.84	586.66	3
in vivo-ON	274	288	HQAEQLQDFASNIEQK				90.0%	1756.84	586.65	3
in vivo-ON	289	297	ANSLImEYK	M6 Oxidation	100%	1,000.00	99.8%	1083.53	543.03	2
in vivo-ON	289	297	ANSLImEYK	M6 Oxidation	100%	1,000.00	94.3%	1083.53	543.02	2
in vivo-ON	289	297	ANSLImEYK	M6 Oxidation	100%	1,000.00	95.9%	1083.53	542.76	2
in vivo-ON	289	297	ANSLImEYK	M6 Oxidation	100%	1,000.00	95.8%	1083.53	542.96	2
in vivo-ON	289	297	ANSLImEYK	M6 Oxidation	100%	1,000.00	99.8%	1083.53	543.07	2
in vivo-ON	289	297	ANSLImEYK	M6 Oxidation	100%	1,000.00	96.1%	1083.53	542.97	2
in vivo-ON	289	297	ANSLImEYK	M6 Oxidation	100%	1,000.00	99.9%	1083.53	543.00	2
in vivo-ON	289	297	ANSLImEYK	M6 Oxidation	100%	1,000.00	98.2%	1083.53	543.01	2
in vivo-ON	289	297	ANSLImEYK	M6 Oxidation	100%	1,000.00	99.2%	1083.53	543.03	2
in vivo-ON	289	310	ANSLIMEYKNEQLQSAEEHFHSHK				100.0%	2604.23	869.87	3
in vivo-ON	289	310	ANSLImEYKNEQLQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	100.0%	2620.22	875.00	3
in vivo-ON	289	310	ANSLIMEYKNEQLQSAEEHFHSHK				100.0%	2604.23	869.36	3
in vivo-ON	289	310	ANSLImEYKNEQLQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	100.0%	2620.22	874.87	3
in vivo-ON	289	310	ANSLImEYKNEQLQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	100.0%	2620.22	874.85	3
in vivo-ON	289	310	ANSLImEYKNEQLQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	100.0%	2620.22	875.21	3
in vivo-ON	289	310	ANSLIMEYKNEQLQSAEEHFHSHK				100.0%	2604.23	869.61	3
in vivo-ON	289	310	ANSLImEYKNEQLQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	100.0%	2620.22	874.91	3
in vivo-ON	289	310	ANSLIMEYKNEQLQSAEEHFHSHK				100.0%	2604.23	869.49	3
in vivo-ON	289	310	ANSLIMEYKNEQLQSAEEHFHSHK				100.0%	2604.23	869.71	3
in vivo-ON	289	310	ANSLImEYKNEQLQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	100.0%	2620.22	874.90	3
in vivo-ON	289	310	ANSLIMEYKNEQLQSAEEHFHSHK				100.0%	2604.23	869.66	3
in vivo-ON	289	310	ANSLIMEYKNEQLQSAEEHFHSHK				100.0%	2604.23	869.10	3
in vivo-ON	289	310	ANSLImEYKNEQLQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	100.0%	2620.22	874.87	3
in vivo-ON	289	310	ANSLImEYKNEQLQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	100.0%	2620.22	874.80	3
in vivo-ON	289	310	ANSLIMEYKNEQLQSAEEHFHSHK				100.0%	2604.23	869.73	3
in vivo-ON	289	310	ANSLIMEYKNEQLQSAEEHFHSHK				100.0%	2604.23	869.68	3
in vivo-ON	289	310	ANSLImEYKNEQLQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	96.7%	2620.22	874.32	3
in vivo-ON	289	310	ANSLIMEYKNEQLQSAEEHFHSHK	Y8 Phosphorylation, S14 Phosphorylation	94%, 99%	18.61, 26.28	60.0%	2764.16	922.58	3
in vivo-ON	289	297	ANSLIMEYK				100.0%	1067.53	1068.60	1
in vivo-ON	289	297	ANSLIMEYK				99.2%	1067.53	1069.66	1
in vivo-ON	289	310	ANSLIMEYKNEQLQSAEEHFHSHK				100.0%	2604.23	869.57	3
in vivo-ON	289	297	ANSLIMEYK				100.0%	1067.53	1068.63	1
in vivo-ON	289	310	ANSLImEYKNEQLQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	98.7%	2620.22	874.83	3
in vivo-ON	289	310	ANSLImEYKNEQLQSAEEHFHSHK	M6 Oxidation	100%	1,000.00	51.9%	2620.22	874.94	3
in vivo-ON	293	296	IMEY				79.8%	554.24	555.17	1
in vivo-ON	297	307	KNELQSAEEHF				100.0%	1330.62	666.17	2
in vivo-ON	297	307	KNELQSAEEHF				100.0%	1330.62	666.60	2
in vivo-ON	297	307	KNELQSAEEHF				100.0%	1330.62	666.57	2
in vivo-ON	297	307	KNELQSAEEHF				100.0%	1330.62	666.32	2
in vivo-ON	297	307	KNELQSAEEHF				99.7%	1330.62	666.59	2
in vivo-ON	297	307	KNELQSAEEHF				100.0%	1330.62	444.91	3
in vivo-ON	297	307	KNELQSAEEHF				100.0%	1330.62	444.87	3
in vivo-ON	297	307	KNELQSAEEHF				96.0%	1330.62	444.97	3
in vivo-ON	297	307	KNELQSAEEHF				99.9%	1330.62	444.97	3
in vivo-ON	297	307	KNELQSAEEHF				100.0%	1330.62	444.91	3
in vivo-ON	297	307	KNELQSAEEHF				78.2%	1330.62	666.33	2
in vivo-ON	298	307	NELQSAEEHF				99.6%	1202.52	602.12	2
in vivo-ON	298	307	NELQSAEEHF				84.1%	1202.52	602.09	2
in vivo-ON	298	307	NELQSAEEHF				71.1%	1202.52	601.64	2
in vivo-ON	298	310	NELQSAEEHFHSHK				100.0%	1554.71	778.27	2
in vivo-ON	298	310	NELQSAEEHFHSHK				100.0%	1554.71	778.60	2

Table S2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	298	310	NELQSAEEHFESHK				100.0%	1554.71	778.57	2
in vivo-ON	298	310	NELQSAEEHFESHK				100.0%	1554.71	778.33	2
in vivo-ON	298	310	NELQSAEEHFESHK				100.0%	1554.71	778.67	2
in vivo-ON	298	310	NELQSAEEHFESHK				100.0%	1554.71	778.69	2
in vivo-ON	298	310	NELQSAEEHFESHK				99.9%	1554.71	778.38	2
in vivo-ON	298	307	NELQSAEEHF				96.4%	1202.52	602.60	2
in vivo-ON	298	310	NELQSAEEHFESHK				100.0%	1554.71	778.40	2
in vivo-ON	298	310	NELQSAEEHFESHK				100.0%	1554.71	778.73	2
in vivo-ON	298	310	NELQSAEEHFESHK				100.0%	1554.71	779.36	2
in vivo-ON	298	310	NELQSAEEHFESHK				100.0%	1554.71	778.71	2
in vivo-ON	298	310	NELQSAEEHFESHK				100.0%	1554.71	778.76	2
in vivo-ON	298	310	NELQSAEEHFESHK				100.0%	1554.71	778.80	2
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	652.64	2
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	652.66	2
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	652.63	2
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	652.67	2
in vivo-ON	311	321	IKELTSENELK				99.6%	1302.70	653.12	2
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	435.61	3
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	435.68	3
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	435.59	3
in vivo-ON	311	321	IKELTSENELK				99.9%	1302.70	435.45	3
in vivo-ON	311	321	IKELTSENELK				98.5%	1302.70	435.65	3
in vivo-ON	311	321	IKELTSENELK				99.8%	1302.70	435.58	3
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	652.66	2
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	652.62	2
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	652.65	2
in vivo-ON	311	321	IKELTSENELK				99.8%	1302.70	652.42	2
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	435.51	3
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	435.56	3
in vivo-ON	311	321	IKELTSENELK				100.0%	1302.70	1303.73	1
in vivo-ON	313	321	ELTSENELK				96.1%	1061.52	532.83	2
in vivo-ON	325	334	LQEEKDSSLK				100.0%	1201.66	602.15	2
in vivo-ON	325	335	LQEEKDSSLKK				100.0%	1329.75	665.90	2
in vivo-ON	325	335	LQEEKDSSLKK				100.0%	1329.75	666.18	2
in vivo-ON	325	335	LQEEKDSSLKK				100.0%	1329.75	665.97	2
in vivo-ON	325	334	LQEEKDSSLK				100.0%	1201.66	602.61	2
in vivo-ON	325	335	LQEEKDSSLKK				90.2%	1329.75	444.64	3
in vivo-ON	325	335	LQEEKDSSLKK				100.0%	1329.75	444.49	3
in vivo-ON	325	335	LQEEKDSSLKK				97.6%	1329.75	444.88	3
in vivo-ON	325	335	LQEEKDSSLKK				100.0%	1329.75	444.72	3
in vivo-ON	325	335	LQEEKDSSLKK				99.9%	1329.75	444.35	3
in vivo-ON	325	335	LQEEKDSSLKK				67.2%	1329.75	444.64	3
in vivo-ON	325	334	LQEEKDSSLK				74.6%	1201.66	401.87	3
in vivo-ON	325	335	LQEEKDSSLKK				87.8%	1329.75	666.12	2
in vivo-ON	330	334	DSSLK				58.0%	574.33	575.34	1
in vivo-ON	334	342	KKVQEGASL				81.0%	958.54	480.32	2
in vivo-ON	335	346	KVQEGASLAMQR				100.0%	1316.69	659.72	2
in vivo-ON	335	346	KVQEGASLAMQR				100.0%	1316.69	659.48	2
in vivo-ON	335	346	KVQEGASLAMQR				100.0%	1316.69	659.73	2
in vivo-ON	335	346	KVQEGASLAMQR				100.0%	1316.69	659.36	2
in vivo-ON	335	346	KVQEGASLAMQR				100.0%	1316.69	659.73	2
in vivo-ON	335	346	KVQEGASLAMQR				100.0%	1316.69	659.40	2
in vivo-ON	335	346	KVQEGASLAMQR				100.0%	1316.69	659.81	2
in vivo-ON	335	346	KVQEGASLAMQR				100.0%	1316.69	659.70	2
in vivo-ON	335	346	KVQEGASLAMQR				100.0%	1316.69	440.25	3
in vivo-ON	335	346	KVQEGASLAMQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	667.70	2
in vivo-ON	335	346	KVQEGASLAMQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	667.60	2
in vivo-ON	335	346	KVQEGASLAMQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	667.78	2

Table S2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	668.41	2
in vivo-ON	335	346	KVQEGASLAmQR				100.0%	1316.69	440.18	3
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	668.19	2
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	667.68	2
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	445.56	3
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	668.17	2
in vivo-ON	335	346	KVQEGASLAmQR				100.0%	1316.69	440.39	3
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	667.76	2
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	445.95	3
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	667.74	2
in vivo-ON	335	346	KVQEGASLAmQR				100.0%	1316.69	440.37	3
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	445.65	3
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	99.7%	1332.68	667.75	2
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	445.82	3
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	445.56	3
in vivo-ON	335	346	KVQEGASLAmQR				100.0%	1316.69	440.33	3
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	100.0%	1332.68	445.73	3
in vivo-ON	335	346	KVQEGASLAmQR	M10 Oxidation	100%	1,000.00	72.2%	1332.68	667.34	2
in vivo-ON	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.56	2
in vivo-ON	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.55	2
in vivo-ON	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.63	2
in vivo-ON	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.48	2
in vivo-ON	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.48	2
in vivo-ON	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.48	2
in vivo-ON	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.56	2
in vivo-ON	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.58	2
in vivo-ON	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.24	2
in vivo-ON	336	346	VQEGASLAmQR	M9 Oxidation	100%	1,000.00	100.0%	1204.59	603.62	2
in vivo-ON	336	346	VQEGASLAmQR				100.0%	1188.59	595.62	2
in vivo-ON	336	346	VQEGASLAmQR				100.0%	1188.59	595.60	2
in vivo-ON	336	346	VQEGASLAmQR				75.2%	1188.59	596.50	2
in vivo-ON	347	355	VQNKHDLEK				100.0%	1109.58	556.10	2
in vivo-ON	347	355	VQNKHDLEK				100.0%	1109.58	556.05	2
in vivo-ON	347	355	VQNKHDLEK				100.0%	1109.58	556.04	2
in vivo-ON	347	355	VQNKHDLEK				99.5%	1109.58	556.18	2
in vivo-ON	347	355	VQNKHDLEK				99.8%	1109.58	556.06	2
in vivo-ON	347	355	VQNKHDLEK				99.5%	1109.58	555.95	2
in vivo-ON	351	373	HDLEKKRLQSAIQPLQEENNSLK				100.0%	2717.45	906.80	3
in vivo-ON	351	373	HDLEKKRLQSAIQPLQEENNSLK				100.0%	2717.45	906.85	3
in vivo-ON	351	373	HDLEKKRLQSAIQPLQEENNSLK				100.0%	2717.45	907.22	3
in vivo-ON	351	373	HDLEKKRLQSAIQPLQEENNSLK				60.3%	2717.45	907.43	3
in vivo-ON	351	373	HDLEKKRLQSAIQPLQEENNSLK				100.0%	2717.45	906.74	3
in vivo-ON	351	373	HDLEKKRLQSAIQPLQEENNSLK				100.0%	2717.45	906.81	3
in vivo-ON	357	373	RLQSAIQPLQEENNSLK				100.0%	1967.04	984.81	2
in vivo-ON	357	373	RLQSAIQPLQEENNSLK				100.0%	1967.04	984.88	2
in vivo-ON	357	373	RLQSAIQPLQEENNSLK				100.0%	1967.04	985.37	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	605.33	3
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.34	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.73	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.75	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.60	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	907.19	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				95.8%	1810.94	907.52	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.80	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				93.7%	1810.94	907.69	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	605.08	3
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.53	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.76	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.81	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.85	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.77	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	906.64	2
in vivo-ON	358	381	LQSAIQPLQEENNSLKQQIEQLQR				100.0%	2834.49	946.03	3
in vivo-ON	358	373	LQSAIQPLQEENNSLK				97.8%	1810.94	605.41	3
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	907.29	2
in vivo-ON	358	373	LQSAIQPLQEENNSLK				89.9%	1810.94	605.42	3
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	604.87	3
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	907.04	2
in vivo-ON	358	381	LQSAIQPLQEENNSLKQQIEQLQR				83.0%	2834.49	946.64	3
in vivo-ON	358	381	LQSAIQPLQEENNSLKQQIEQLQR				100.0%	2834.49	946.46	3
in vivo-ON	358	373	LQSAIQPLQEENNSLK				100.0%	1810.94	1812.08	1
in vivo-ON	374	381	QQIEQLQR				97.1%	1041.56	1042.45	1
in vivo-ON	382	390	ELASETVVK				95.2%	974.53	488.58	2
in vivo-ON	382	390	ELASETVVK				98.2%	974.53	488.53	2
in vivo-ON	382	394	ELASETVVKENLK				96.7%	1458.79	487.69	3
in vivo-ON	382	394	ELASETVVKENLK				100.0%	1458.79	730.78	2
in vivo-ON	382	394	ELASETVVKENLK				100.0%	1458.79	731.35	2
in vivo-ON	395	406	SSLDQQSANVQK				71.1%	1303.64	653.31	2
in vivo-ON	395	406	SSLDQQSANVQK				100.0%	1303.64	653.08	2
in vivo-ON	395	406	SSLDQQSANVQK				100.0%	1303.64	653.04	2
in vivo-ON	395	406	SSLDQQSANVQK				99.9%	1303.64	652.63	2
in vivo-ON	395	406	SSLDQQSANVQK				99.8%	1303.64	652.64	2
in vivo-ON	395	412	SSLDQQSANVQKLESTNR				100.0%	2003.99	669.43	3
in vivo-ON	395	412	SSLDQQSANVQKLESTNR				100.0%	2003.99	669.08	3
in vivo-ON	398	406	DQQSANVQK				84.9%	1016.49	509.21	2
in vivo-ON	413	419	ALESTIK				99.0%	760.43	761.46	1
in vivo-ON	413	419	ALESTIK				92.9%	760.43	761.46	1
in vivo-ON	413	419	ALESTIK				69.3%	760.43	761.56	1
in vivo-ON	420	429	TLEEDVYtMk	M9 Oxidation	100%	1,000.00	98.0%	1243.56	623.07	2
in vivo-ON	420	429	TLEEDVYtMk	M9 Oxidation	100%	1,000.00	100.0%	1243.56	622.85	2
in vivo-ON	420	429	TLEEDVYtMk	M9 Oxidation	100%	1,000.00	100.0%	1243.56	623.53	2
in vivo-ON	420	429	TLEEDVYtMk	M9 Oxidation	100%	1,000.00	100.0%	1243.56	1244.45	1
in vivo-ON	420	429	TLEEDVYtMk				100.0%	1227.57	615.11	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	1027.61	1
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	1027.62	1
in vivo-ON	432	440	IIELEGILK				90.4%	1026.63	514.63	2
in vivo-ON	432	440	IIELEGILK				85.9%	1026.63	514.62	2
in vivo-ON	432	440	IIELEGILK				99.6%	1026.63	514.37	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.58	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.38	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.62	2
in vivo-ON	432	440	IIELEGILK				92.5%	1026.63	514.35	2
in vivo-ON	432	440	IIELEGILK				99.0%	1026.63	514.56	2
in vivo-ON	432	440	IIELEGILK				98.7%	1026.63	514.62	2
in vivo-ON	432	440	IIELEGILK				99.9%	1026.63	514.59	2
in vivo-ON	432	440	IIELEGILK				97.0%	1026.63	514.54	2
in vivo-ON	432	440	IIELEGILK				99.5%	1026.63	514.47	2
in vivo-ON	432	440	IIELEGILK				88.4%	1026.63	514.36	2
in vivo-ON	432	440	IIELEGILK				97.7%	1026.63	514.32	2
in vivo-ON	432	440	IIELEGILK				96.8%	1026.63	514.34	2
in vivo-ON	432	440	IIELEGILK				97.2%	1026.63	514.25	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.67	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.33	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.42	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.74	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.71	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	515.23	2

Table S2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.71	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.70	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.69	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	515.20	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.68	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.68	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.65	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.70	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.71	2
in vivo-ON	432	440	IIELEGILK				100.0%	1026.63	514.79	2
in vivo-ON	432	440	IIELEGILK				98.9%	1026.63	514.70	2
in vivo-ON	432	440	IIELEGILK				99.9%	1026.63	514.29	2
in vivo-ON	432	440	IIELEGILK				99.7%	1026.63	514.69	2
in vivo-ON	447	452	DGLVEK				100.0%	659.35	660.46	1
in vivo-ON	447	452	DGLVEK				84.7%	659.35	660.60	1
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	473.04	2
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	472.85	2
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	472.76	2
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	472.83	2
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	472.81	2
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	472.86	2
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	472.77	2
in vivo-ON	453	460	LIAEETLR				99.9%	943.53	472.59	2
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	944.46	1
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	944.50	1
in vivo-ON	453	461	LIAEETLRR				86.4%	1099.64	551.14	2
in vivo-ON	453	461	LIAEETLRR				81.0%	1099.64	551.23	2
in vivo-ON	453	461	LIAEETLRR				73.5%	1099.64	551.20	2
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	473.02	2
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	473.06	2
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	472.86	2
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	473.57	2
in vivo-ON	453	460	LIAEETLR				99.9%	943.53	945.64	1
in vivo-ON	453	460	LIAEETLR				100.0%	943.53	944.61	1
in vivo-ON	462	471	KLHNTIQELK				99.6%	1222.70	408.86	3
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	408.72	3
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	408.63	3
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	408.90	3
in vivo-ON	462	471	KLHNTIQELK				98.1%	1222.70	612.18	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.75	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.70	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.63	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.73	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.64	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.73	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.77	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.67	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.73	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.70	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	409.15	3
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.78	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.71	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.76	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	409.11	3
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	409.00	3
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	613.01	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	408.97	3
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	409.08	3

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	408.85	3
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	408.94	3
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	409.04	3
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.82	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	409.03	3
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	408.82	3
in vivo-ON	462	471	KLHNTIQELK				68.6%	1222.70	612.37	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	409.02	3
in vivo-ON	462	471	KLHNTIQELK				99.4%	1222.70	409.03	3
in vivo-ON	462	471	KLHNTIQELK				99.1%	1222.70	613.00	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	613.15	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	408.72	3
in vivo-ON	462	471	KLHNTIQELK				99.9%	1222.70	612.66	2
in vivo-ON	462	471	KLHNTIQELK				76.2%	1222.70	408.90	3
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	408.77	3
in vivo-ON	462	471	KLHNTIQELK				96.5%	1222.70	612.41	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	409.06	3
in vivo-ON	462	471	KLHNTIQELK				99.8%	1222.70	612.45	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	409.06	3
in vivo-ON	462	471	KLHNTIQELK				89.3%	1222.70	408.93	3
in vivo-ON	462	471	KLHNTIQELK				99.8%	1222.70	612.46	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	409.09	3
in vivo-ON	462	471	KLHNTIQELK				97.0%	1222.70	408.97	3
in vivo-ON	462	471	KLHNTIQELK				66.4%	1222.70	613.39	2
in vivo-ON	462	471	KLHNTIQELK				99.2%	1222.70	409.04	3
in vivo-ON	462	471	KLHNTIQELK				57.1%	1222.70	612.65	2
in vivo-ON	462	471	KLHNTIQELK				100.0%	1222.70	612.47	2
in vivo-ON	462	471	KLHNTIQELK				96.1%	1222.70	409.14	3
in vivo-ON	462	471	KLHNTIQELK				92.0%	1222.70	408.96	3
in vivo-ON	462	471	KLHNTIQELK				79.8%	1222.70	612.74	2
in vivo-ON	462	471	KLHNTIQELK				99.9%	1222.70	612.82	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.60	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.54	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.35	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.33	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.43	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.60	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.58	2
in vivo-ON	463	471	LHNTIQELK				99.5%	1094.61	548.61	2
in vivo-ON	463	471	LHNTIQELK				99.4%	1094.61	548.65	2
in vivo-ON	463	471	LHNTIQELK				97.7%	1094.61	548.61	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.40	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.64	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.68	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.68	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.66	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	549.24	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.34	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.37	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.50	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	548.70	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	1095.67	1
in vivo-ON	463	471	LHNTIQELK				98.1%	1094.61	548.32	2
in vivo-ON	463	471	LHNTIQELK				99.7%	1094.61	548.72	2
in vivo-ON	463	471	LHNTIQELK				99.9%	1094.61	548.44	2
in vivo-ON	463	471	LHNTIQELK				96.0%	1094.61	548.65	2
in vivo-ON	463	471	LHNTIQELK				100.0%	1094.61	1095.71	1
in vivo-ON	476	479	VFCR				55.3%	523.26	524.28	1

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	480	521	VRPPLGDGESAQIAFPDQNSEASTIEIVAQAPGSSLTGNGIK				100.0%	4221.12	1408.07	3
in vivo-ON	480	521	VRPPLGDGESAQIAFPDQNSEASTIEIVAQAPGSSLTGNGIK				100.0%	4221.12	1408.75	3
in vivo-ON	480	521	VRPPLGDGESAQIAFPDQNSEASTIEIVAQAPGSSLTGNGIK				100.0%	4221.12	1408.33	3
in vivo-ON	480	521	VRPPLGDGESAQIAFPDQNSEASTIEIVAQAPGSSLTGNGIK				100.0%	4221.12	1408.80	3
in vivo-ON	480	521	VRPPLGDGESAQIAFPDQNSEASTIEIVAQAPGSSLTGNGIK				100.0%	4221.12	1408.15	3
in vivo-ON	480	521	VRPPLGDGESAQIAFPDQNSEASTIEIVAQAPGSSLTGNGIK				100.0%	4221.12	1408.02	3
in vivo-ON	480	521	VRPPLGDGESAQIAFPDQNSEASTIEIVAQAPGSSLTGNGIK				56.8%	4221.12	1408.62	3
in vivo-ON	480	521	VRPPLGDGESAQIAFPDQNSEASTIEIVAQAPGSSLTGNGIK				100.0%	4221.12	1408.81	3
in vivo-ON	480	521	VRPPLGDGESAQIAFPDQNSEASTIEIVAQAPGSSLTGNGIK				99.9%	4221.12	1408.10	3
in vivo-ON	480	521	VRPPLGDGESAQIAFPDQNSEASTIEIVAQAPGSSLTGNGIK				100.0%	4221.12	1408.60	3
in vivo-ON	480	521	VRPPLGDGESAQIAFPDQNSEASTIEIVAQAPGSSLTGNGIK				99.2%	4221.12	1408.58	3
in vivo-ON	480	521	VRPPLGDGESAQIAFPDQNSEASTIEIVAQAPGSSLTGNGIK				93.0%	4221.12	1408.60	3
in vivo-ON	522	529	QYAFNFDR				99.4%	1059.48	531.42	2
in vivo-ON	522	529	QYAFNFDR				99.3%	1059.48	531.01	2
in vivo-ON	522	529	QYAFNFDR				95.7%	1059.48	531.01	2
in vivo-ON	522	529	QYAFNFDR				98.6%	1059.48	530.79	2
in vivo-ON	522	529	QYAFNFDR				98.2%	1059.48	531.09	2
in vivo-ON	522	529	QYAFNFDR				76.3%	1059.48	531.03	2
in vivo-ON	522	529	QYAFNFDR				72.2%	1059.48	531.04	2
in vivo-ON	522	529	QYAFNFDR				50.1%	1059.48	531.05	2
in vivo-ON	522	529	QYAFNFDR				84.1%	1059.48	531.12	2
in vivo-ON	522	529	QYAFNFDR				75.4%	1059.48	531.06	2
in vivo-ON	522	529	QYAFNFDR				100.0%	1059.48	531.18	2
in vivo-ON	522	529	QYAFNFDR				99.2%	1059.48	531.05	2
in vivo-ON	524	531	AFNFDRVF				94.5%	1014.49	508.57	2
in vivo-ON	530	569	VFSPETTNEDEVNELSQLIQSAMDGYNVcIFAYGQTGSGK	C29 Iodoacetamide derivative	100%	1,000.00	100.0%	4416.02	1473.59	3
in vivo-ON	530	569	VFSPETTNEDEVNELSQLIQSAMDGYNVcIFAYGQTGSGK	C29 Iodoacetamide derivative	100%	1,000.00	100.0%	4416.02	1473.52	3
in vivo-ON	530	569	VFSPETTNEDEVNELSQLIQSAMDGYNVcIFAYGQTGSGK	S21 Phosphorylation	8%	0	99.1%	4438.97	1480.59	3
in vivo-ON	530	569	VFSPETTNEDEVNELSQLIQSAMDGYNVcIFAYGQTGSGK	M23 Oxidation, C29 Iodoacetamide derivative	100%, 100%	1,000.00, 1,000.00	86.2%	4432.02	1479.13	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	81.36	100.0%	1720.79	861.74	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	854.26	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	853.81	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	94.27	100.0%	1720.79	861.74	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	853.80	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	94.27	100.0%	1720.79	861.77	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	869.71	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	854.35	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	854.26	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	81.36	100.0%	1720.79	861.86	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	870.27	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	869.81	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	869.76	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	73.62	100.0%	1720.79	574.50	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	102.87	100.0%	1720.79	861.96	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	870.33	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	121.05	100.0%	1720.79	861.46	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	66.56	100.0%	1720.79	861.87	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	869.67	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	80.96	100.0%	1720.79	575.16	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	84.46	100.0%	1720.79	861.75	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	104.16	100.0%	1720.79	861.50	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	67.8	100.0%	1720.79	862.32	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	869.78	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	580.45	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	55.9	100.0%	1720.79	575.33	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	869.76	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	869.76	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	869.77	2

Table S2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	71.79	100.0%	1720.79	861.65	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	60.97	100.0%	1720.79	575.18	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	67.8	100.0%	1720.79	861.80	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	580.49	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	869.83	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	580.21	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	65.68	100.0%	1720.79	575.06	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	41.75	100.0%	1720.79	575.01	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	71.79	100.0%	1720.79	861.86	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	869.51	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	60.1	100.0%	1720.79	861.76	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	23.13	100.0%	1720.79	861.77	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	853.80	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	42.99	100.0%	1720.79	861.75	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	95%	10.83	97.6%	1720.79	575.27	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	44.3	100.0%	1720.79	861.91	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	580.06	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	580.12	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	32.67	99.7%	1720.79	862.25	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	47.38	100.0%	1720.79	861.90	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	32.67	100.0%	1720.79	862.43	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	18.98	98.6%	1720.79	575.40	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	99.7%	1736.78	580.60	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	95%	9.97	96.2%	1720.79	575.07	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	34.17	98.7%	1720.79	575.06	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	23.62	99.4%	1720.79	862.31	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	569.53	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	40.04	100.0%	1720.79	574.85	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	580.22	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	83.3%	1736.78	580.37	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	869.79	2
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation, M10 Oxidation	100%, 100%	1,000.00, 1,000.00	100.0%	1736.78	580.27	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	26.38	94.6%	1720.79	574.59	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	45.99	60.5%	1720.79	861.83	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	569.54	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR				99.6%	1704.79	569.51	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	99%	24.93	99.9%	1720.79	574.98	3
in vivo-ON	570	585	THTmSSNTGmIPSSVR	M4 Oxidation	100%	21.94	95.1%	1720.79	574.88	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR				100.0%	1704.79	569.66	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR				67.2%	1704.79	569.97	3
in vivo-ON	570	585	THTMSSNTGmIPSSVR				98.0%	1704.79	853.74	2
in vivo-ON	570	585	THTMSSNTGmIPSSVR	M10 Oxidation	100%	56.47	65.6%	1720.79	862.06	2
in vivo-ON	577	585	TGmIPSSVR	M3 Oxidation	100%	1,000.00	99.7%	962.49	482.21	2
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNNEEEKGK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1029.88	3
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNNEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1452.12	2
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNNEEEKGK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1030.21	3
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNNEEEKGK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1030.20	3
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNNEEEKGK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1029.95	3
in vivo-ON	603	629	MEGQFLEIYNETIIDLLASGNNEEEKGK				100.0%	3069.49	1024.61	3
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNNEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1451.88	2
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNNEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1451.97	2
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNNEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1452.16	2
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNNEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1452.41	2
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNNEEEKGK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1029.97	3
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNNEEEKGK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1030.11	3
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNNEEEKGK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1029.95	3
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNNEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1452.25	2
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNNEEEKGK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1030.01	3

Table S2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	z
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1452.23	2
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1451.92	2
in vivo-ON	603	627	MEGQFLEIYNETIIDLLASGNEEEEK				100.0%	2884.37	963.27	3
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1452.04	2
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	968.44	3
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNEEEEK GK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1030.11	3
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNEEEEK GK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1030.00	3
in vivo-ON	603	629	MEGQFLEIYNETIIDLLASGNEEEEK GK				96.1%	3069.49	1024.35	3
in vivo-ON	603	627	MEGQFLEIYNETIIDLLASGNEEEEK				100.0%	2884.37	1442.64	2
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNEEEEK GK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1030.29	3
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1451.29	2
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNEEEEK GK	M1 Oxidation	100%	1,000.00	87.4%	3085.48	1029.93	3
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNEEEEK GK	M1 Oxidation	100%	1,000.00	99.9%	3085.48	1030.30	3
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	968.36	3
in vivo-ON	603	629	MEGQFLEIYNETIIDLLASGNEEEEK GK				98.2%	3069.49	1024.02	3
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1451.46	2
in vivo-ON	603	627	MEGQFLEIYNETIIDLLASGNEEEEK				100.0%	2884.37	963.27	3
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1452.19	2
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1452.23	2
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1452.24	2
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNEEEEK GK	M1 Oxidation	100%	1,000.00	99.8%	3085.48	1030.28	3
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	968.60	3
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNEEEEK GK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1029.53	3
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1451.79	2
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1451.67	2
in vivo-ON	603	629	mEGQFLEIYNETIIDLLASGNEEEEK GK	M1 Oxidation	100%	1,000.00	100.0%	3085.48	1544.67	2
in vivo-ON	603	627	mEGQFLEIYNETIIDLLASGNEEEEK	M1 Oxidation	100%	1,000.00	100.0%	2900.36	1451.76	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.31	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.19	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	637.99	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.22	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.25	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.10	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.18	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.06	2
in vivo-ON	630	639	KKLEIYHDTK				88.3%	1273.70	638.56	2
in vivo-ON	630	639	KKLEIYHDTK				99.9%	1273.70	637.80	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	637.83	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.64	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.48	2
in vivo-ON	630	639	KKLEIYHDTK				75.1%	1273.70	638.15	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.15	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.27	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.24	2
in vivo-ON	630	639	KKLEIYHDTK				99.7%	1273.70	638.79	2
in vivo-ON	630	639	KKLEIYHDTK				100.0%	1273.70	638.07	2
in vivo-ON	630	639	KKLEIYHDTK				86.0%	1273.70	638.34	2
in vivo-ON	630	639	KKLEIYHDTK				99.8%	1273.70	637.79	2
in vivo-ON	630	639	KKLEIYHDTK				99.4%	1273.70	638.04	2
in vivo-ON	630	639	KKLEIYHDTK				99.8%	1273.70	638.45	2
in vivo-ON	630	639	KKLEIYHDTK				99.9%	1273.70	638.71	2
in vivo-ON	630	639	KKLEIYHDTK				93.1%	1273.70	638.11	2
in vivo-ON	630	639	KKLEIYHDTK				97.3%	1273.70	638.05	2
in vivo-ON	630	639	KKLEIYHDTK				99.5%	1273.70	637.96	2
in vivo-ON	630	639	KKLEIYHDTK				58.3%	1273.70	637.79	2
in vivo-ON	630	639	KKLEIYHDTK				77.8%	1273.70	637.74	2
in vivo-ON	630	639	KKLEIYHDTK				99.7%	1273.70	637.62	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	573.81	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	573.79	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.61	2
in vivo-ON	631	639	KLEIYHDTK				94.2%	1145.61	574.16	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.62	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.15	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.04	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.00	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.18	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.16	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.12	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.28	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	573.99	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.15	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.13	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.63	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.12	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.19	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	1146.72	1
in vivo-ON	631	639	KLEIYHDTK				99.6%	1145.61	574.90	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.32	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.23	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	1146.76	1
in vivo-ON	631	639	KLEIYHDTK				97.3%	1145.61	574.25	2
in vivo-ON	631	639	KLEIYHDTK				99.1%	1145.61	574.58	2
in vivo-ON	631	639	KLEIYHDTK				72.0%	1145.61	574.11	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.04	2
in vivo-ON	631	639	KLEIYHDTK				100.0%	1145.61	574.22	2
in vivo-ON	631	639	KLEIYHDTK				98.7%	1145.61	574.30	2
in vivo-ON	631	639	KLEIYHDTK				98.6%	1145.61	573.55	2
in vivo-ON	632	639	LEIYHDTK				100.0%	1017.51	510.05	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	968.42	3
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	968.40	3
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1451.64	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1451.41	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1451.38	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1451.07	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1452.19	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1452.07	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	968.64	3
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1452.16	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1452.31	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1451.64	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1452.15	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1451.32	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				98.1%	2900.47	968.49	3
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1451.71	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1452.25	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1451.64	2
in vivo-ON	643	668	TTITNITSEPLDTPEQVTWLLDQASK				100.0%	2900.47	1451.00	2
in vivo-ON	662	669	LLDQASKN				99.9%	887.47	444.81	2
in vivo-ON	669	683	NRSVAAINANEHSSR	T7 Phosphorylation	65%	7.49	100.0%	1692.73	565.19	3
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.29	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.58	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.58	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.57	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	673.10	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.31	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.53	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	z
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.61	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.59	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.70	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.43	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.71	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.62	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.52	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.67	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.67	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.64	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.73	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.71	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	672.41	2
in vivo-ON	671	683	sVAATNANEHSSR	S1 Phosphorylation	61%	2.83	95.3%	1422.59	712.18	2
in vivo-ON	671	683	SVAatNANEHSSR	T5 Phosphorylation	50%	0	99.7%	1422.59	712.12	2
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	1343.72	1
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	1343.77	1
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	1344.79	1
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	1343.79	1
in vivo-ON	671	683	SVAATNANEHSSR				100.0%	1342.62	1343.69	1
in vivo-ON	671	683	SVAATNANEHSSR				54.7%	1342.62	449.05	3
in vivo-ON	684	704	SHSVFmLHLNGSNSTTGETcR	M6 Oxidation, C20 Iodoacetamide derivative	100%, 100%	1,000.00, 1,000.00	99.7%	2350.04	785.14	3
in vivo-ON	684	704	SHSVFmLHLNGSNSTTGETcR	M6 Oxidation, C20 Iodoacetamide derivative	100%, 100%	1,000.00, 1,000.00	100.0%	2350.04	785.03	3
in vivo-ON	684	704	SHSVFmLHLNGSNSTTGETcR	C20 Iodoacetamide derivative	100%	1,000.00	100.0%	2334.05	779.83	3
in vivo-ON	684	704	SHSVFmLHLNGSNSTTGETcR	M6 Oxidation, C20 Iodoacetamide derivative	100%, 100%	1,000.00, 1,000.00	100.0%	2350.04	784.98	3
in vivo-ON	684	704	SHSVFmLHLNGSNSTTGETcR	M6 Oxidation, C20 Iodoacetamide derivative	100%, 100%	1,000.00, 1,000.00	67.3%	2350.04	785.10	3
in vivo-ON	684	704	SHSVFmLHLNGSNSTTGETcR	C20 Iodoacetamide derivative	100%	1,000.00	100.0%	2334.05	779.82	3
in vivo-ON	684	704	SHSVFmLHLNGSNSTTGETcR	M6 Oxidation, C20 Iodoacetamide derivative	100%, 100%	1,000.00, 1,000.00	100.0%	2350.04	785.10	3
in vivo-ON	684	704	SHSVFmLHLNGSNSTTGETcR	M6 Oxidation, C20 Iodoacetamide derivative	100%, 100%	1,000.00, 1,000.00	100.0%	2350.04	784.49	3
in vivo-ON	684	704	SHSVFmLHLNGSNSTTGETcR	M6 Oxidation, C20 Iodoacetamide derivative	100%, 100%	1,000.00, 1,000.00	100.0%	2350.04	785.08	3
in vivo-ON	684	704	SHSVFmLHLNGSNSTTGETcR	M6 Oxidation, C20 Iodoacetamide derivative	100%, 100%	1,000.00, 1,000.00	100.0%	2350.04	784.86	3
in vivo-ON	692	707	LNGsNsITGETCRSTL	S4 Phosphorylation, T7 Phosphorylation	46%, 63%	4.73, 7.32	57.9%	1799.68	600.12	3
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.11	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.66	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.10	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.14	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	694.83	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.12	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.10	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	694.85	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	694.82	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	694.78	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	694.64	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.00	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.21	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	463.98	3
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	463.92	3
in vivo-ON	705	717	STLNLIDLAGSER				75.5%	1387.73	695.85	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	464.06	3
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	464.01	3
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	464.01	3
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.37	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.30	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.39	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.21	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.73	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.22	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.34	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.25	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.75	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	694.87	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.78	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.41	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.81	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.20	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	694.90	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	695.21	2
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	464.02	3
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	464.07	3
in vivo-ON	705	717	STLNLIDLAGSER				87.9%	1387.73	695.80	2
in vivo-ON	705	717	STLNLIDLAGSER				84.4%	1387.73	464.10	3
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	1389.88	1
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	1388.93	1
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	1389.89	1
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	1388.84	1
in vivo-ON	705	717	STLNLIDLAGSER				100.0%	1387.73	1388.98	1
in vivo-ON	708	718	NLIDLAGSERL				99.8%	1199.65	600.79	2
in vivo-ON	708	718	NLIDLAGSERL				96.9%	1199.65	600.72	2
in vivo-ON	708	718	NLIDLAGSERL				62.4%	1199.65	600.77	2
in vivo-ON	709	717	LIDLAGSER				100.0%	972.52	487.37	2
in vivo-ON	709	717	LIDLAGSER				99.8%	972.52	487.44	2
in vivo-ON	718	727	LSSSQSVGER				100.0%	1048.51	525.48	2
in vivo-ON	718	727	LSSSQSVGER				100.0%	1048.51	525.54	2
in vivo-ON	718	727	LSSSQSVGER				100.0%	1048.51	525.48	2
in vivo-ON	718	727	LSSSQSVGER				100.0%	1048.51	525.60	2
in vivo-ON	718	727	LSSSQSVGER				100.0%	1048.51	1049.41	1
in vivo-ON	718	727	LSSSQSVGER				100.0%	1048.51	525.56	2
in vivo-ON	718	727	LSSSQSVGER				100.0%	1048.51	525.58	2
in vivo-ON	718	727	LSSSQSVGER				100.0%	1048.51	525.58	2
in vivo-ON	718	727	LSSSQSVGER				50.2%	1048.51	525.63	2
in vivo-ON	718	727	LSSSQSVGER				100.0%	1048.51	1050.67	1
in vivo-ON	718	727	LSSSQSVGER				100.0%	1048.51	1049.58	1
in vivo-ON	718	727	LSSSQSVGER				100.0%	1048.51	1049.61	1
in vivo-ON	724	727	VGER				56.6%	459.24	460.28	1
in vivo-ON	728	736	LKETQAINK				99.9%	1043.60	522.77	2
in vivo-ON	728	736	LKETQAINK				99.9%	1043.60	523.05	2
in vivo-ON	728	736	LKETQAINK				96.3%	1043.60	523.13	2
in vivo-ON	728	736	LKETQAINK				98.0%	1043.60	523.14	2
in vivo-ON	728	736	LKETQAINK				100.0%	1043.60	522.83	2
in vivo-ON	728	736	LKETQAINK				99.8%	1043.60	522.87	2
in vivo-ON	728	736	LKETQAINK				84.0%	1043.60	522.79	2
in vivo-ON	728	736	LKETQAINK				99.4%	1043.60	523.15	2
in vivo-ON	728	736	LKETQAINK				99.9%	1043.60	523.18	2
in vivo-ON	728	736	LKETQAINK				100.0%	1043.60	523.08	2
in vivo-ON	728	736	LKETQAINK				100.0%	1043.60	522.88	2
in vivo-ON	728	736	LKETQAINK				94.0%	1043.60	522.83	2
in vivo-ON	728	736	LKETQAINK				87.5%	1043.60	523.09	2
in vivo-ON	728	736	LKETQAINK				68.5%	1043.60	522.39	2
in vivo-ON	728	736	LKETQAINK				99.0%	1043.60	1045.73	1
in vivo-ON	728	736	LKETQAINK				99.7%	1043.60	1044.69	1
in vivo-ON	728	736	LKETQAINK				98.2%	1043.60	1044.70	1
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	64%	5.55	97.9%	2420.18	808.24	3
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	98%	16.76	99.7%	2420.18	808.13	3
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	97%	16.51	51.5%	2420.18	808.26	3
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	100%	26.57	99.8%	2420.18	808.35	3

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	66%	4.73	62.2%	2420.18	807.95	3
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	84%	8.26	98.3%	2420.18	808.14	3
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	60%	3.56	80.5%	2420.18	807.49	3
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	85%	8.26	84.7%	2420.18	807.83	3
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	89%	9.85	100.0%	2420.18	807.85	3
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	99%	20.17	59.3%	2420.18	808.44	3
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	100%	24.67	63.6%	2420.18	807.81	3
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	84%	8.26	91.4%	2420.18	807.73	3
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	78%	8.26	99.2%	2420.18	807.79	3
in vivo-ON	730	752	ETQAINKsLSCLGDVIHALGSGK	S8 Phosphorylation	65%	4.08	65.7%	2420.18	807.18	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.73	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.81	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	808.14	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	808.26	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.83	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	808.13	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.85	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.82	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.95	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.18	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.07	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	807.52	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.24	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	S3 Phosphorylation	87%	8.46	100.0%	1635.77	819.37	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.05	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.19	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	538.88	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.19	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.19	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.05	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.08	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.06	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.11	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	S3 Phosphorylation	90%	9.38	100.0%	1635.77	818.88	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.08	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	S3 Phosphorylation	72%	7.21	100.0%	1635.77	819.31	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.11	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.19	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.06	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	538.82	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	S3 Phosphorylation	83%	7.09	100.0%	1635.77	818.78	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	99.7%	1612.82	539.18	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	539.28	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	99.7%	1612.82	539.05	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	S3 Phosphorylation	45%	0	99.7%	1635.77	819.17	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	S3 Phosphorylation	67%	6.08	97.8%	1635.77	818.83	2
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	98.8%	1612.82	539.18	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	92.9%	1612.82	539.34	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	538.97	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	100.0%	1612.82	538.88	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	97.8%	1612.82	539.15	3
in vivo-ON	737	752	LSCLGDVIHALGSGK	C4 Iodoacetamide derivative	100%	1,000.00	97.3%	1612.82	539.44	3
in vivo-ON	738	752	LsclGDVIHALGSGK	S2 Phosphorylation, C3 Iodoacetamide derivative	100%, 100%	104.11, 1,000.00	94.0%	1605.76	803.15	2
in vivo-ON	738	752	LsclGDVIHALGSGK	S2 Phosphorylation, C3 Iodoacetamide derivative	100%, 100%	81.96, 1,000.00	86.8%	1605.76	803.13	2
in vivo-ON	738	752	LsclGDVIHALGSGK	S2 Phosphorylation, C3 Iodoacetamide derivative	100%, 100%	113.39, 1,000.00	91.4%	1605.76	803.15	2
in vivo-ON	738	752	LsclGDVIHALGSGK	S2 Phosphorylation, C3 Iodoacetamide derivative	100%, 100%	100.22, 1,000.00	91.6%	1605.76	803.60	2
in vivo-ON	738	752	LsclGDVIHALGSGK	S2 Phosphorylation, C3 Iodoacetamide derivative	100%, 100%	100.07, 1,000.00	67.2%	1605.76	803.01	2
in vivo-ON	738	752	LsclGDVIHALGSGK	S2 Phosphorylation, C3 Iodoacetamide derivative	100%, 100%	96.96, 1,000.00	86.4%	1605.76	803.13	2

Table S2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	738	752	LscLGDVIHALGSGK	S2 Phosphorylation, C3 Iodoacetamide derivative	100%, 100%	96.96, 1,000.00	92.6%	1605.76	803.18	2
in vivo-ON	738	752	LscLGDVIHALGSGK	S2 Phosphorylation, C3 Iodoacetamide derivative	100%, 100%	90.99, 1,000.00	95.2%	1605.76	803.15	2
in vivo-ON	738	752	LscLGDVIHALGSGK	S2 Phosphorylation, C3 Iodoacetamide derivative	100%, 100%	78.62, 1,000.00	97.0%	1605.76	803.19	2
in vivo-ON	753	760	EGTYIPYR				83.9%	997.49	499.97	2
in vivo-ON	753	760	EGTYIPYR				89.9%	997.49	499.99	2
in vivo-ON	753	760	EGTYIPYR				84.0%	997.49	500.01	2
in vivo-ON	753	760	EGTYIPYR				69.7%	997.49	499.76	2
in vivo-ON	753	760	EGTYIPYR				100.0%	997.49	998.63	1
in vivo-ON	753	760	EGTYIPYR				100.0%	997.49	998.59	1
in vivo-ON	761	777	NSKLTNLLQYSLGGNSK				100.0%	1835.97	919.30	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.40	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.67	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				99.9%	1506.80	754.84	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.37	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.69	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.64	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	755.01	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.73	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.71	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.69	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.75	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	755.21	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				96.4%	1506.80	755.20	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	503.69	3
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	503.51	3
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	503.54	3
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	503.82	3
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.54	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.58	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.41	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.73	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.54	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	755.34	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.70	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.84	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.86	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.80	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.51	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	755.54	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.71	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.79	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.84	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.67	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.83	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	755.35	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.43	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.82	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				99.9%	1506.80	754.76	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	754.78	2
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	503.70	3
in vivo-ON	764	777	LTNLLQYSLGGNSK				96.4%	1506.80	503.53	3
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	503.73	3
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	1507.88	1
in vivo-ON	764	777	LTNLLQYSLGGNSK				100.0%	1506.80	1508.00	1
in vivo-ON	771	779	SLGGNSKTL				99.4%	875.47	438.74	2
in vivo-ON	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.12	2
in vivo-ON	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.14	2
in vivo-ON	778	788	TLmFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.17	2

Table S2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	639.99	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.15	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.80	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.24	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.29	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.18	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.28	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.28	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.19	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.77	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.71	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.21	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.31	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.40	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.04	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.32	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.18	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.08	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	631.83	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	639.99	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.03	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.35	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.32	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.72	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	633.05	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	639.97	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.23	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.79	2
in vivo-ON	778	788	TLMFVNISPLK				98.7%	1261.71	632.78	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.72	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.16	2
in vivo-ON	778	788	TLMFVNISPLK				99.7%	1261.71	632.78	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.23	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.20	2
in vivo-ON	778	788	TLMFVNISPLK				50.2%	1261.71	632.91	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.40	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	95.4%	1277.71	640.84	2
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	640.67	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	632.46	2
in vivo-ON	778	788	TLMFVNISPLK				100.0%	1261.71	1262.76	1
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	1262.66	1
in vivo-ON	778	788	TLMFVNISPLK	M3 Oxidation	100%	1,000.00	100.0%	1277.71	1278.76	1
in vivo-ON	789	799	QHVPETLcSLR	C8 Iodoacetamide derivative	100%	1,000.00	99.8%	1338.67	447.57	3
in vivo-ON	789	799	QHVPETLcSLR	C8 Iodoacetamide derivative	100%	1,000.00	85.6%	1338.67	670.24	2
in vivo-ON	789	799	QHVPETLcSLR	C8 Iodoacetamide derivative	100%	1,000.00	98.3%	1338.67	670.57	2
in vivo-ON	800	813	FATKVNNTQIGTAR				96.0%	1519.81	508.03	3
in vivo-ON	800	813	FATKVNNTQIGTAR				99.9%	1519.81	761.25	2
in vivo-ON	804	813	VNNTQIGTAR				99.5%	1072.56	537.82	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.51	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.37	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.49	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.55	2
in vivo-ON	804	813	VNNTQIGTAR				98.5%	1072.56	538.13	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.55	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.31	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.58	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.58	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.31	2

Where	Start	Stop	Peptide Sequence	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	z
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.54	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.54	2
in vivo-ON	804	813	VNNTQIGTAR				96.3%	1072.56	538.11	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.72	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.68	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.43	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.61	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	538.27	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	537.90	2
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	1073.66	1
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	1073.74	1
in vivo-ON	804	813	VNNTQIGTAR				100.0%	1072.56	1073.66	1
in vivo-ON	804	813	VNNTQIGTAR				93.4%	1072.56	1074.73	1
in vivo-ON	804	813	VNNTQIGTAR				68.6%	1072.56	1074.80	1
in vivo-ON	804	813	VNNTQIGTAR				94.7%	1072.56	1073.75	1

Table Key: Where = where the site was identified (in vitro or in vivo-ON = cdc16-116, in vivo-OFF = sid2-250), Start and Stop = amino acid numbers of the beginning and end of the identified peptide, Peptide Sequence = amino acid sequence of identified peptide, lowercase letter(s) indicate site(s) of modification, Variable Modifications = type of modification (Note that 'Dehydro' or loss of water often indicates phosphorylation), Localization Probability = Scaffold's score for the modification localization, Ascore = Ascore for modification localization (see Beausoleil SA, Villén J, Gerber SA, Rush J, Gygi SP. Nat Biotechnol. 2006, 24(10):1285.), Scaffold:Peptide Probability = peptide identification probability based on Peptide ProphetTM (see Keller A, Nesvizhskii AI, Kolker E, Aebersold R., Anal Chem. 2002 15;74(20):5383.), Peptide Mass = mass of peptide (Da), Observed m/z = detected mass/charge, Charge = charge of peptide ion observed

Table S3. All RXXS sites identified in Klp2 by LC-MS/MS

Where?	Start	Stop	Peptide Sequence	Site(s)	Variable Modifications	Localization Prob.	Ascore	Scaffold: Peptide Prob.	Mass	Observed m/z	Z
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	23.3	100.0%	1015.48	508.93	2
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	18.53	100.0%	1015.48	508.94	2
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	23.3	100.0%	1015.48	508.94	2
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	25.77	100.0%	1015.48	508.95	2
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	39.03	99.9%	1015.48	508.95	2
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	21.4	99.7%	1015.48	508.95	2
in vitro	111	120	SVsASSHFGR	S113	S3 Phosphorylation	100%	25.77	99.6%	1113.46	557.99	2
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	18.53	99.2%	1015.48	508.98	2
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	34.65	99.0%	1015.48	508.94	2
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	23.3	97.5%	1015.48	508.91	2
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	25.77	97.1%	1015.48	508.93	2
in vitro	111	120	SVsASSHFGR	S113	S3 Phosphorylation	100%	23.3	92.4%	1113.46	558.00	2
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	23.3	92.2%	1015.48	508.95	2
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	93%	11.45	89.5%	1015.48	508.95	2
in vitro	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	25.77	75.5%	1015.48	508.82	2
in vitro	111	120	SVsASSHFGR	S113	S3 Phosphorylation	100%	25.77	64.8%	1113.46	557.95	2
in vitro	121	136	PAsAVSSSLNSSDDVR	S123	S3 Phosphorylation	56%	5.77	100.0%	1670.71	836.12	2
in vivo-ON	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	31.37	100.0%	1015.48	509.01	2
in vivo-ON	111	120	SVsASSHFGR	S113	S3 Dehydro	100%	19.84	100.0%	1015.48	509.03	2
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113	S3 Dehydro	72%	9.05	62.0%	2588.22	864.18	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113	S3 Phosphorylation	47%	8.63	100.0%	2686.20	897.05	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113	S3 Dehydro	4%	0	100.0%	2588.22	864.19	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113	S3 Phosphorylation	5%	0	100.0%	2686.20	896.96	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113	S3 Phosphorylation	21%	0	100.0%	2686.20	896.84	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113	S3 Phosphorylation	0%	0	96.1%	2686.20	896.74	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113	S3 Dehydro	3%	14.04	93.0%	2588.22	864.13	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113	S3 Dehydro	20%	7.87	81.5%	2588.22	864.30	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113	S3 Dehydro	1%	11.1	68.7%	2588.22	864.14	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113	S3 Dehydro	1%	0	58.6%	2588.22	864.21	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113	S3 Dehydro	24%	7.39	53.1%	2588.22	864.17	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113, S123	S3 Phosphorylation, S13 Phosphorylation	21%, 100%	0.00, 24.53	39.1%	2766.16	923.65	3
in vivo-ON	111	136	sVSASSHFGRPASAVSSSLNSSDDVR	S111, S123	S1 Phosphorylation, S13 Phosphorylation	18%, 96%	0.00, 16.36	20.0%	2766.16	923.44	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113, S123	S3 Phosphorylation, S13 Dehydro	0%, 93%	0.00, 17.90	9.6%	2668.19	890.66	3
in vivo-ON	111	136	SVsASSHFGRPASAVSSSLNSSDDVR	S113, S115/S116	S3 Phosphorylation, S6 Phosphorylation	0%, 99%	0.00, 23.70	7.7%	2766.16	923.27	3

Table key: Where = where the site was identified (as in Supplemental Table 2), Start and Stop = amino acid numbers of the beginning and end of the phosphopeptide ID'd, Peptide Sequence = amino acid sequence of peptide ID'd and lowercase 's' is phosphoserine, Site = modified amino acids(s) in Klp2, Variable Modifications = type of modification (Phosphorylation or Dehydro can indicate phosphorylation), Localization Probability = Scaffold's score for the modification localization, Ascore = Ascore for modification localization (see Beausoleil SA, Villén J, Gerber SA, Rush J, Gygi SP. Nat Biotechnol. 2006, 24(10):1285.), Scaffold:Peptide Probability = peptide identification probability based on Peptide Prophet™ (see Keller A, Nesvizhskii AI, Kolker E, Aebersold R., Anal Chem. 2002 15;74(20):5383.), Mass = mass of peptide (Da), Observed m/z = detected mass/charge, Charge = charge of peptide ion observed

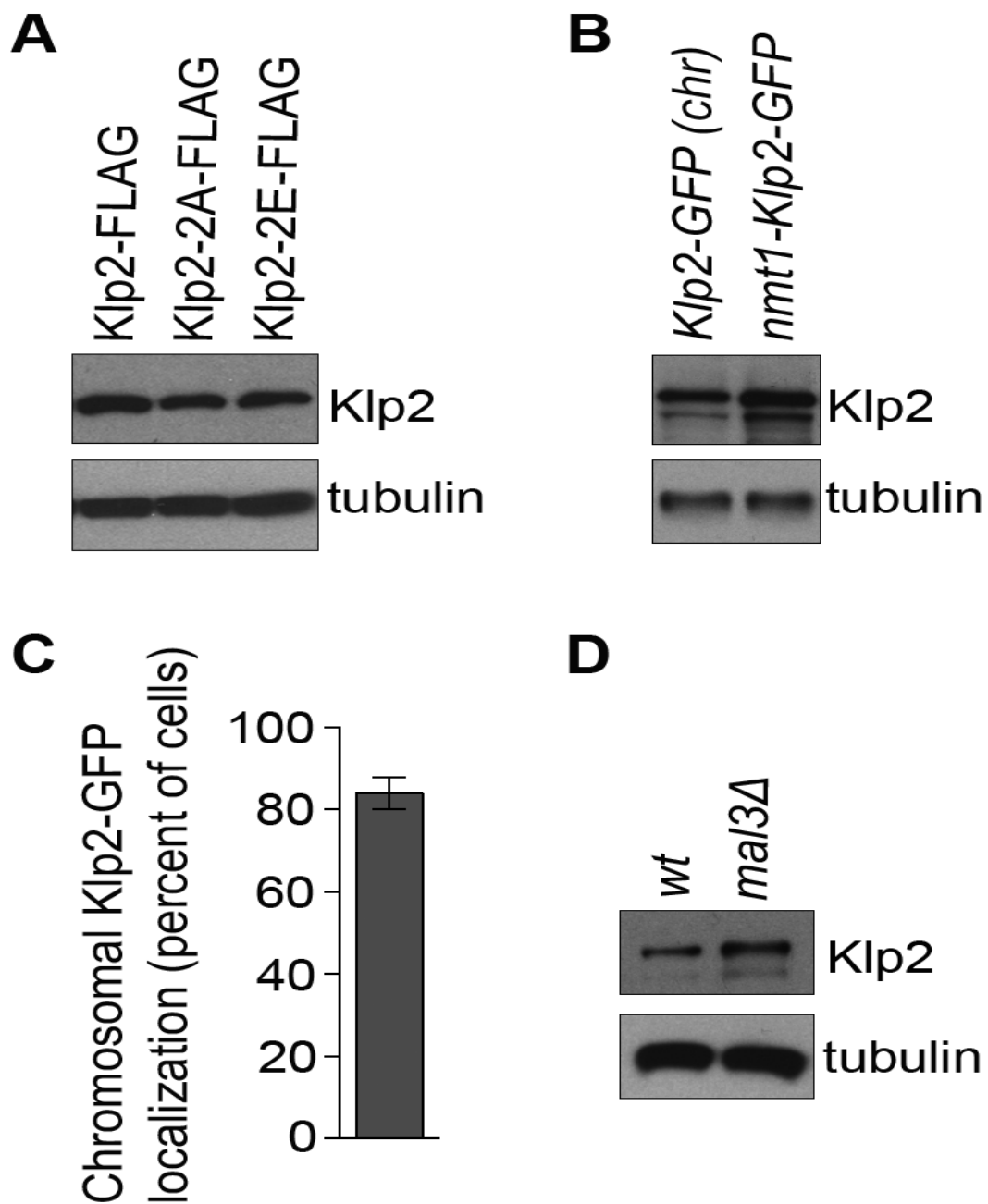


Figure S1: Klp2 expression levels and localization of chromosomal Klp2-GFP. (A) Protein levels of Klp2-FLAG, Klp2-2A-FLAG, and Klp2-2E-FLAG were compared to each other by Western blotting. (B) Protein levels of Klp2-GFP expressed from the endogenous and from the *nmt1* promoter under repressed condition were tested by immuno-blotting. (C) Cells were scored for Klp2-GFP puncta. Klp2-GFP was expressed from the endogenous promoter. (D) Protein levels of Klp2-GFP expressed from the endogenous promoter in the indicated genotypes were tested by immuno-blotting.