

Table S2. n-PTEN peptides identified by LC-MS/MS

UniProt ID: P60484

Protein Description: Phosphatidylinositol 3,4,5-trisphosphate 3-phos

Coverage: 78.91%

Unique peptides: 141

PSMs: 284

<u>Sequence</u>	<u># PSMs</u>
EPSNPEASSSTSVTPDVSDNEPDHYR	1
ADNDKEYLVLTLLTK	9
RYQEDGFDLDTYIYPNIIAmGFPAER	2
TVEEPSNPEASSSTSVTPDVSDNEPDHYR	2
DKmFHFVWNTFFIPGPEETSEK	3
VKIYSSNSGPTR	2
NHLDYRVPVALLFHK	8
DDNHVAAIHcK	2
DTTSDPENEPFDEDQHTQITK	1
HFWVNTFFIPGPEETSEK	3
NDKEYLVLTLLTK	4
MFHFVWNTFFIPGPEETSEK	2
SSTSVTPDVSDNEPDHYR	1
NDLKANKDKANR	2
NPEASSSTSVTPDVSDNEPDHYR	1
PENEPFDEDQHTQITKV	1
DKkGVTIPSQR	3
DKEYLVLTLLTK	2
TVEEPsNPEASSSTSVTPDVSDNEPDHYR	1
EPFDEDQHTQITKV	3
DEDQHTQITK	3
FDLDTYIYPNIIAmGFPAER	1
DEDQHTQITKV	3
GDIKVEFFHK	5
EDKfM YFEFPQPLPVcGDIK	1
DHNPPQLELIK	2
IPGPEETSEKVE	1
KGVTIPSQR	3
DNDKEYLVLTLLTK	1
VSDNEPDHYR	1
EPFDEDQHTQITK	3
VAQYPFEDHNPPQLELIK	1
DKKGVVTIPSQR	1
AQEALDFYGEVR	14
DEDQHTQITkV	1
LDLTYIYPNIIAmGFPAER	2
IYSSNSGPTRR	4
GPEETSEKVE	1
VNTFFIPGPEETSEK	1
FWVNTFFIPGPEETSEK	2
DLDTYIYPNIIAmGFPAER	1
PGPEETSEK	3
DIKVEFFHK	4

NHLDYRPVALL	5
NHLDYRPVALLF	2
FEFPQPLPVcGDIK	1
VAQYPFEDHNPPQLEL	2
IYSSNSGPTR	3
TFFIPGPEETSEK	3
EDDNHVAAIHcK	1
FEDHNPPQL	1
VAQYPFEDHNPPQLE	1
YRPVALLFHK	1
WVNTFFIPGPEETSEK	1
FmYFEFPQPLPVcGDIK	3
EPFDEDQHTQITkV	1
YFSPNFKVK	1
NHLDYRPVAL	6
LYIYPNIIAmGFPAER	1
EDHNPPQLEL	2
PVALLFHK	1
NDLKANKDK	1
IYNLcAER	3
IikEIVSR	2
NDLKANK	1
FIPGPEETSEKVE	2
ADNDKEYLVLT	2
DHNPPQLELIKPF	2
FEDHNPPQ	1
IIAmGFPAER	3
NHLDYRPVA	4
IPGPEETSEK	3
VAQYPFEDHNPPQ	2
PENEPFDEDQHTQITkV	1
EPFDEDQHTQ	1
YSSNSGPTR	1
YPFEDHNPPQ	1
NNIDDVVR	5
LDYRPVALL	1
HYDTAKF	1
DHNPPQLE	2
DTTSDPENEPFDEDQHTQITkV	1
YIYPNIIAmGFPAER	1
DNEPDHYR	2
KVEFFHK	1
ADNDKEYL	2
RYVYYYSYLLK	1
GVTIPSQRR	2
EFPQPLPVc	3
DQHTQITKV	1
DKmFHFVWNTF	1
GVTIPSQR	5
FFIPGPEETSEK	2
NHLDYRP	3
HLDYRPVAL	1

YSSNSGPTRR	2
EYLVLTLLK	2
EDHNPPQL	2
REDKf _m YF	1
DHNPPQLEL	3
HLDYRPVA	1
YFSPNFK	5
DIKVEFF	1
VEFFHKQNK	1
HYDTakF	2
NHLDYR	1
YVYYYSYLLK	1
REDKf _m YFE	1
DHNPPQL	2
RYVYYYS	2
SIcSIER	1
RYQEDGF	1
VTIPSQR	1
SSNSGPTRR	1
TQITkV	1
DYRPVAL	1
HYDTAK	1
DK _m FHFW	1
LELIKPF	1
DK _m FHFWVN	1
REDk _f mYF	1
AYLLHR	1
FIPGPEETSEK	2
LELIKPF _c	1
LEGVYR	5
LVLTLTK	1
MFHFWVNTF	1
EDHNPPQLE	1
EPFDEDQH	1
HFVNTF	1
EFQPLPV _c G	2
YPNIIAm	1
YSYLLK	1
DYRPVALL	1
LDYRPVAL	1
YRPVALLF	1
DGFDLDTYIYPN	1
DLDTYIYPN	1
NDKEYLVL	1
YRPVALL	1
DIKVEF	1
TGV _m IcAY	1
LYIYPNIIAmG	1
RYVYYY	2
DFYGEVR	1
YRPVAL	1
EDKf _m YF	1

5 from the WWP2 ubiquitylation experiment.

phatase and dual-specificity protein phosphatase PTEN OS=Homo sapiens GN=PTEN PE=1 SV=1 - [PTEN_

	<u>Modifications</u>	<u>Xcorr score</u>	<u>Charge</u>	<u>MH+ [Da]</u>
		5.57	3	2817.20523
		5.54	2	1622.86931
M21(Oxidation)		5.36	3	3223.56296
		4.89	3	3146.36643
M3(Oxidation)		4.89	3	2702.25748
		4.69	3	1308.6912
		4.39	2	1722.94414
C10(Carbamidomethyl)		4.27	3	1279.58429
		3.98	3	2562.08017
		3.97	3	2165.04288
		3.88	2	1436.80254
		3.86	3	2443.14328
		3.85	2	2005.87273
K8(GlyGly)		3.81	4	1615.81423
		3.79	3	2504.08445
		3.73	3	2026.93778
K3(GlyGly)		3.72	3	1342.74176
		3.68	2	1322.76213
S6(Phospho)		3.63	3	3226.32895
		3.59	2	1686.79875
		3.58	2	1214.56389
M15(Oxidation)		3.57	2	2475.23418
		3.5	2	1313.63347
		3.49	3	1219.64673
M5(Oxidation); C16(Carbamidomethyl)		3.45	3	2476.17203
		3.41	3	1303.70386
		3.3	2	1314.64311
		3.26	2	985.57866
		3.26	2	1551.83098
		3.23	3	1231.53339
		3.22	2	1587.726
		3.2	3	2138.10184
		3.18	3	1228.70084
		3.13	2	1397.67058
K10(GlyGly)		3.13	2	1427.67717
M13(Oxidation)		3.1	2	2213.13335
		3.07	3	1237.6276
		3.05	2	1104.5053
		3.05	2	1694.83306
		3.04	2	2027.98125
M14(Oxidation)		2.99	2	2328.17583
		2.94	2	973.44719
		2.93	3	1162.62604

	2.92	3	1310.72449
	2.91	3	1457.79691
C10(Carbamidomethyl)	2.91	2	1646.83452
	2.89	2	1896.91277
	2.87	2	1081.52641
	2.83	2	1481.71587
C11(Carbamidomethyl)	2.82	3	1408.62632
	2.81	2	1096.50566
	2.79	2	1783.83843
	2.78	3	1243.73114
	2.78	2	1880.90764
M2(Oxidation); C13(Carbamidomethyl)	2.75	2	2103.98271
K13(GlyGly)	2.7	2	1800.83953
	2.65	3	1129.60416
	2.65	2	1197.63652
M11(Oxidation)	2.64	2	1985.01262
	2.62	2	1191.55461
	2.61	2	924.56798
	2.61	3	1160.59082
C5(Carbamidomethyl)	2.6	2	1038.4937
K3(GlyGly)	2.59	3	1071.65247
	2.58	2	917.46892
	2.56	2	1461.71367
	2.53	2	1280.6353
	2.5	2	1547.82317
	2.48	2	983.42229
M4(Oxidation)	2.47	2	1120.5822
	2.44	2	1084.55315
	2.43	2	1086.53227
	2.4	2	1541.6917
K16(GlyGly)	2.39	3	2140.98117
	2.39	2	1245.50249
	2.38	2	968.44237
	2.36	2	1243.54021
	2.35	2	944.47911
	2.35	2	1059.62273
	2.34	2	881.41472
	2.33	2	949.43804
K22(GlyGly)	2.33	3	2775.16312
M9(Oxidation)	2.3	2	1770.8936
	2.3	2	1045.43279
	2.3	2	934.51842
	2.26	2	967.43559
	2.26	3	1530.79282
	2.25	2	1013.58428
C9(Carbamidomethyl)	2.24	2	1086.53166
	2.22	2	1069.56352
M3(Oxidation)	2.19	2	1487.68132
	2.17	2	857.48332
	2.15	2	1380.67266
	2.14	2	914.44768
	2.13	2	1083.59429

	2.08	2	1124.54436
	2.07	2	1079.63164
	2.03	2	949.4362
M6(Oxidation)	2.01	3	1151.52253
	2	2	1062.52446
	2	2	970.51024
	2	2	902.44072
	1.97	2	897.47331
K6(GlyGly)	1.96	3	1176.61475
	1.96	2	995.45812
	1.94	2	817.39488
	1.91	2	1374.6989
M6(Oxidation)	1.91	2	1280.55828
	1.88	2	820.39495
	1.87	2	1013.47399
C3(Carbamidomethyl)	1.86	2	864.42479
	1.86	2	914.40044
	1.86	2	800.46306
	1.85	2	961.48058
K5(GlyGly)	1.81	2	803.46227
	1.8	2	833.45043
	1.8	2	734.34709
M3(Oxidation)	1.79	2	1026.45403
	1.77	2	859.53203
M3(Oxidation)	1.76	2	1239.56413
K4(GlyGly); M6(Oxidation)	1.76	2	1265.5667
	1.74	2	772.44628
	1.73	2	1233.59917
C8(Carbamidomethyl)	1.72	2	1019.56188
	1.71	2	736.39842
	1.69	2	787.52953
	1.69	2	1228.56511
	1.69	2	1078.47905
	1.66	2	1016.39592
	1.66	2	950.45317
C9(Carbamidomethyl)	1.66	2	1143.54802
M7(Oxidation)	1.66	2	837.41808
	1.65	2	786.44036
	1.63	2	946.53618
	1.61	2	946.5352
	1.59	2	978.57909
	1.56	2	1545.71318
	1.55	2	1226.60039
	1.54	2	993.52672
	1.53	2	831.50902
	1.53	2	750.40416
M4(Oxidation); C6(Carbamidomethyl)	1.53	2	930.4055
M11(Oxidation)	1.47	2	1384.7199
	1.46	2	926.44078
	1.46	2	885.41173
	1.43	2	718.42443
M5(Oxidation)	1.43	2	995.41783

_HUMAN]

ΔM [ppm]

-1.08
3.49
6.93
-0.18
-0.81
0.39
0.14
-0.43
1.96
4.14
2.06
0.18
-0.35
-0.32
1.42
1.21
-1.52
4.15
-1.35
1.03
-0.76
3.08
0.18
-0.25
6.29
2.55
0.53
-0.29
2.87
-0.37
-1.64
4.71
-0.03
0.68
0.71
0.97
-0.66
-0.26
3.41
3.08
7.6
-0.14
0.4

2.21
4.73
5.92
0.02
-0.81
-0.04
-0.8
-0.16
5.48
0.09
0.56
-4.38
-0.23
0.06
-0.83
-3.81
-7.95
1.5
0.15
-9.65
0.33
0.21
1.94
-1.26
0.93
0.53
0.16
-0.28
0.8
-6.67
1.37
0.49
-0.88
1.89
-0.55
2.81
-0.56
0.65
-8.42
2.92
-0.58
4.14
-1.2
-4.12
-0.81
2.55
-0.15
2.44
-0.77
3.2
-0.25
-0.28

0.02
-2.85
-1.28
3.01
2.8
-0.29
0.02
1.81
-1.11
-0.02
-0.31
0.65
-2.64
0.15
1.28
0.43
0.15
0.69
-0.46
0.12
-1.42
0.41
3.68
3.74
2.05
3.73
-0.23
-0.53
2.36
-0.57
0.92
3.46
-0.9
0.3
1.3
-2.05
0.65
0.93
0.53
-0.5
1.98
1.53
5.23
1.56
0.35
1.19
-0.52
1.26
0.13
1.79
-0.33
-0.1