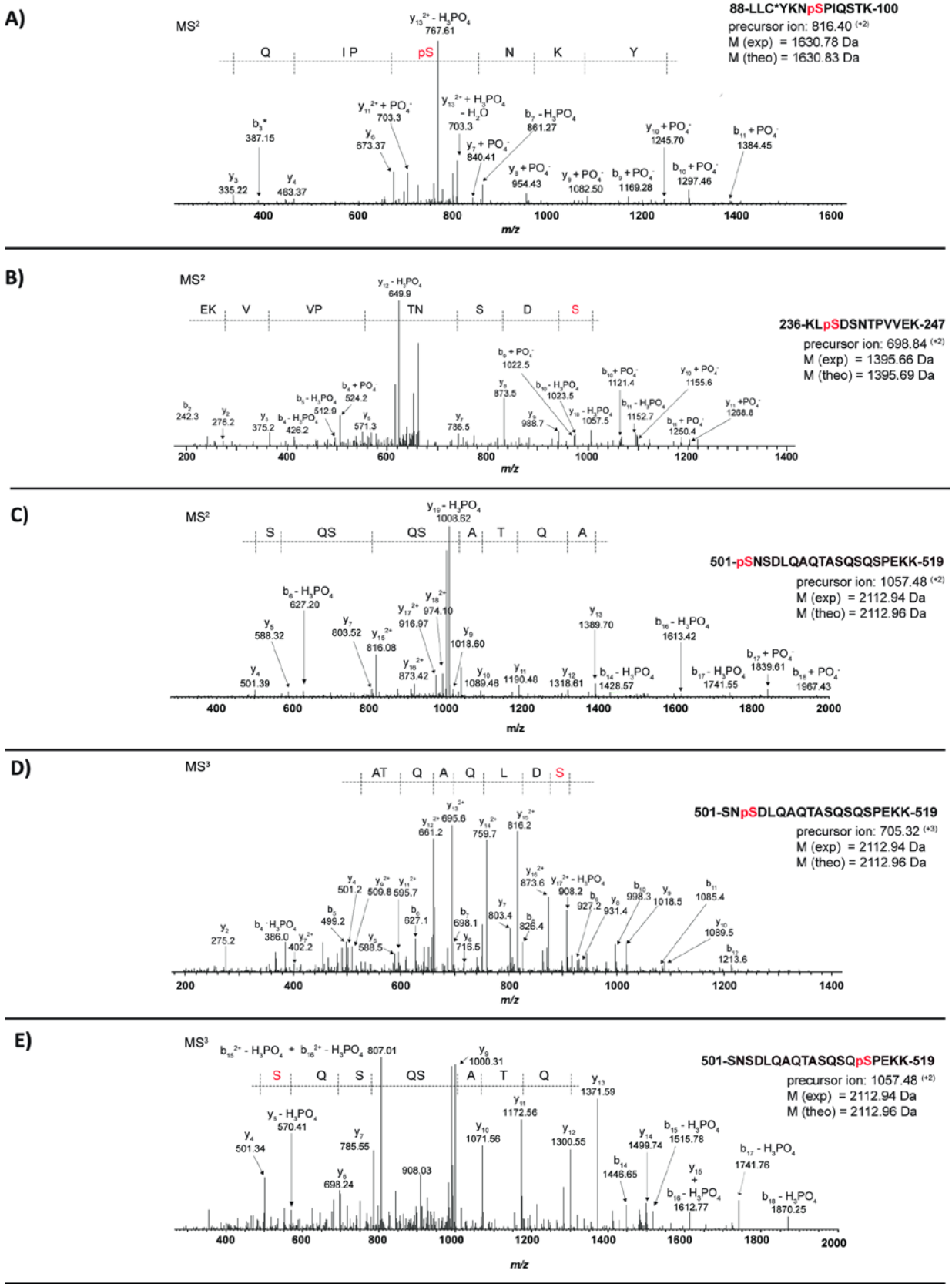
A)
MS²
Q I P pS N K Y
88-LLC*YKNpSPIQSTK-100
precursor ion: 816.40 (+2)
M (exp) = 1630.78 Da
M (theo) = 1630.83 Da
m/z
B)
MS²
EK V VP TN S D S
236-KLpSDSNTPVVEK-247
precursor ion: 698.84 (+2)
M (exp) = 1395.66 Da
M (theo) = 1395.69 Da
m/z
C)
MS²
S QS QS A T Q A
501-pSNSDLQAQTASQSQSPEKK-519
precursor ion: 1057.48 (+2)
M (exp) = 2112.94 Da
M (theo) = 2112.96 Da
m/z
D)
MS³
AT Q A Q L D S
501-SNpSDLQAQTASQSQSPEKK-519
precursor ion: 705.32 (+3)
M (exp) = 2112.94 Da
M (theo) = 2112.96 Da
m/z
E)
MS³
S Q S QS A T Q
501-SNSDLQAQTASQSQpSPEKK-519
precursor ion: 1057.48 (+2)
M (exp) = 2112.94 Da
M (theo) = 2112.96 Da
m/z

Supplemental Figure 1. LC-MS/MS spectra of phospopeptides identified in the Cac1p subunit. For each phosphopeptide, the experimental and theoretical masses of the non-fragmented peptides are indicated. The experimental masses indicate the presence of a single phosphate in each peptide.

A) Phosphorylation of S94: The $y_7^+ PO_4^-$, $b_9^+ PO_4^-$ and $b_{10}^+ PO_4^-$ ions are all consistent with phosphorylation of S94. The y_3, y_4 and y_6 ions are inconsistent with phosphorylation of S98 or T99. *=Cysteine carbamylation caused by *in vitro* alkylation of Cac1p prior to trypsin digestion.

B) Phosphorylation of S238: The $y_{10}^+ PO_4^-$, $y_{11}^+ PO_4^-$ and $b_4^+ PO_4^-$ ions are all consistent with phosphorylation of S238. The y_7, y_8 and y_9 ions are inconsistent with phosphorylation of S240 or T242.

C) Phosphorylation of S501: The y_5, y_7, y_9, y_{11}, y_{15}^{2+}, y_{16}, y_{16}^{2+}, y_{17}^{2+} and y_{18}^{2+} ions are inconsistent with phosphorylation at sites other than S501.

D) Phosphorylation of S503: The y_{17}^{2+}-H_3PO_4 ion corresponds to a 98Da phosphate loss during MS^3 fragmentation of the y_{17}^{2+} ion phosphorylated at S503. The y_5, y_6, y_8, y_9, y_{10}, y_{11}^{2+}, y_{13}^{2+}, y_{14}^{2+}, y_{15}^{2+} and y_{16}^{2+} ions are inconsistent with phosphorylation at sites other than S501 or S503.

E) Phosphorylation of S515: The y_5-H_3PO_4 ion corresponds to a 98Da phosphate loss during MS^3 fragmentation of the y_5 ion phosphorylated at S515. The b_{14} ion is inconsistent with phosphorylation at sites other than S515.

Details on the Experimental procedures are available upon request.