

## Supplemental figures

### Figure S1:

(A) MS/MS spectrum that identified peptide “ASGVDPKFSGSGSGTDFTLK” with Mascot score 39 (upper panel) and MS/MS spectrum of the synthetic peptide “FSGSGSGTDFTLK” (lower panel);

(B) MS/MS spectrum that identified peptide “<sup>P</sup>Y<sup>P</sup>TLVLTPDAPSR” with Mascot score 32 (upper panel) and MS/MS spectrum of the synthetic peptide “VLTPDAPSR” (lower panel);

(C) MS/MS spectrum that identified peptide “<sup>Buty</sup>K<sup>Buty</sup>Q<sup>Buty</sup>K<sup>Buty</sup>K<sup>Buty</sup>K<sup>Buty</sup>K<sup>Buty</sup>KATNTSETPQDSLQDGVDFSR” with Mascot score 70 (upper panel) and MS/MS spectrum of the synthetic peptide “ATNTSETPQDSLQDGVDFSR” (lower panel);

(D) MS/MS spectrum that identified peptide “EALENA<sup>Deamidation</sup>NTNTEVLK” with Mascot score 70 (upper panel) and MS/MS spectrum of the synthetic peptide “EALENANTNTEVLK” (lower panel).

**Figure S2:** False peptide identification caused by misinterpretation of charge state and modification. (A) Assignment of an MS/MS spectrum with a triply charged peptide, <sup>Buty</sup>K<sup>Buty</sup>Q<sup>Buty</sup>K<sup>Buty</sup>K<sup>Buty</sup>K<sup>Buty</sup>K<sup>Buty</sup>KATNTSETPQDSLQDGVDFSR, identified by Mascot with a score of 70. (B) Assignment of the same MS/MS spectrum with a doubly charged unmodified peptide, ATNTSETPQDSLQDGVDFSR, identified by manual inspection.

**Figure S3:** False peptide identification caused by use of peaks from the isotopic distribution. (A) Assignment of an MS/MS spectrum with a doubly charged peptide, VWLDP<sup>Deamidation</sup>NETNEIANANSR, identified by Mascot with a score of 77. (B) Assignment of the same MS/MS spectrum with a doubly charged unmodified peptide, VWLDPNETNEIANANSR, identified by manual inspection.

Figure S1  
(A)

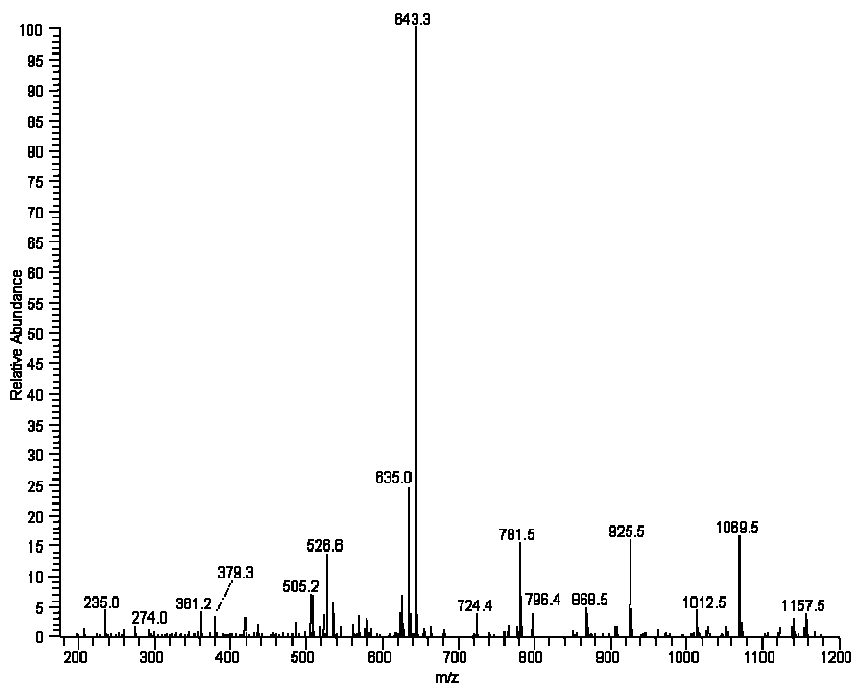
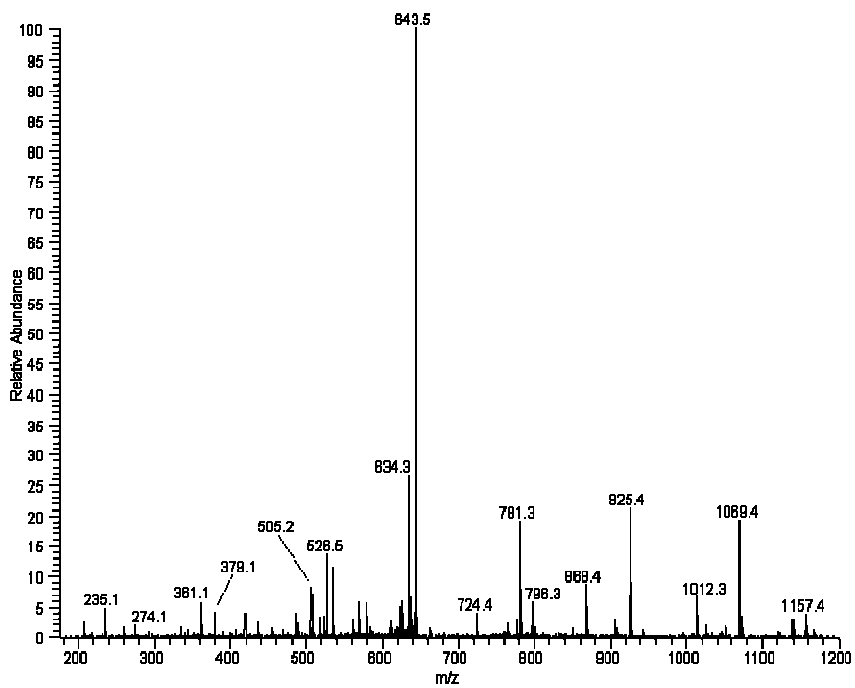


Figure S1  
(B)

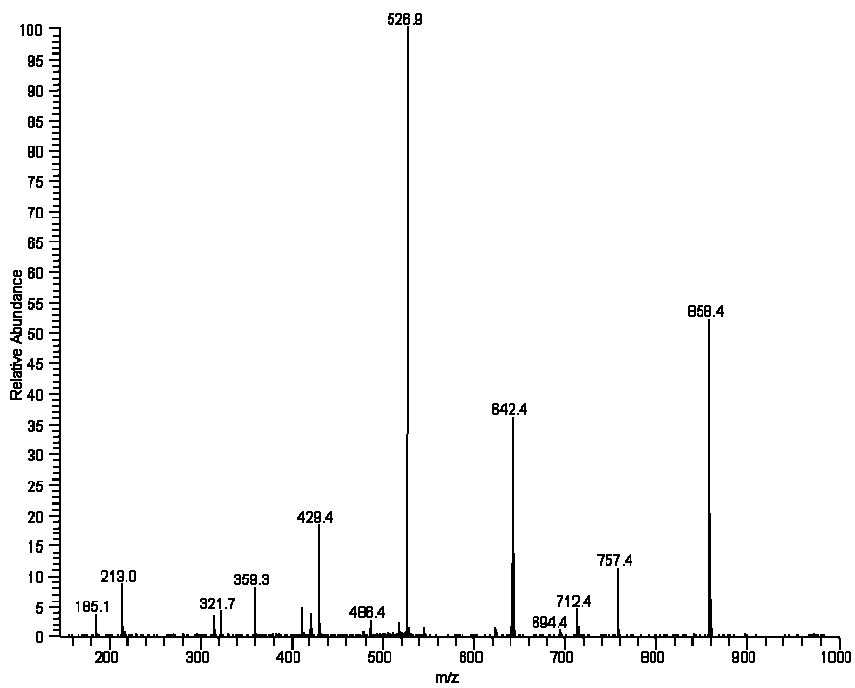
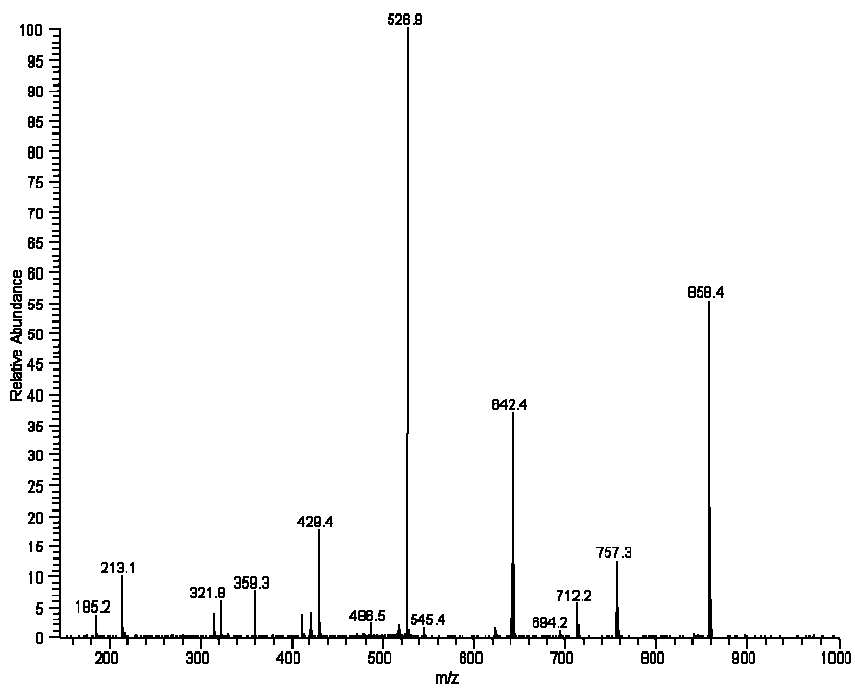


Figure S1  
(C)

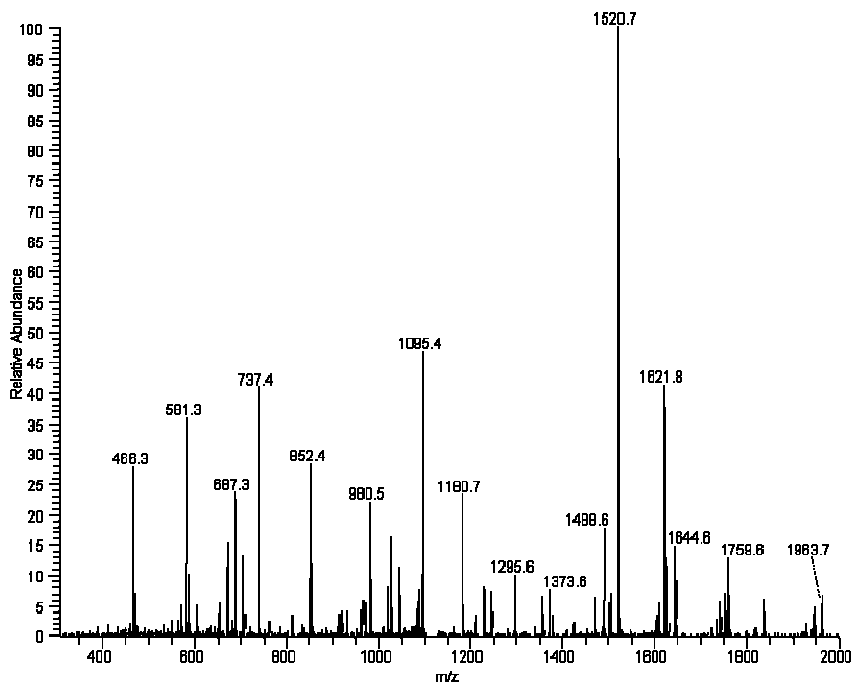
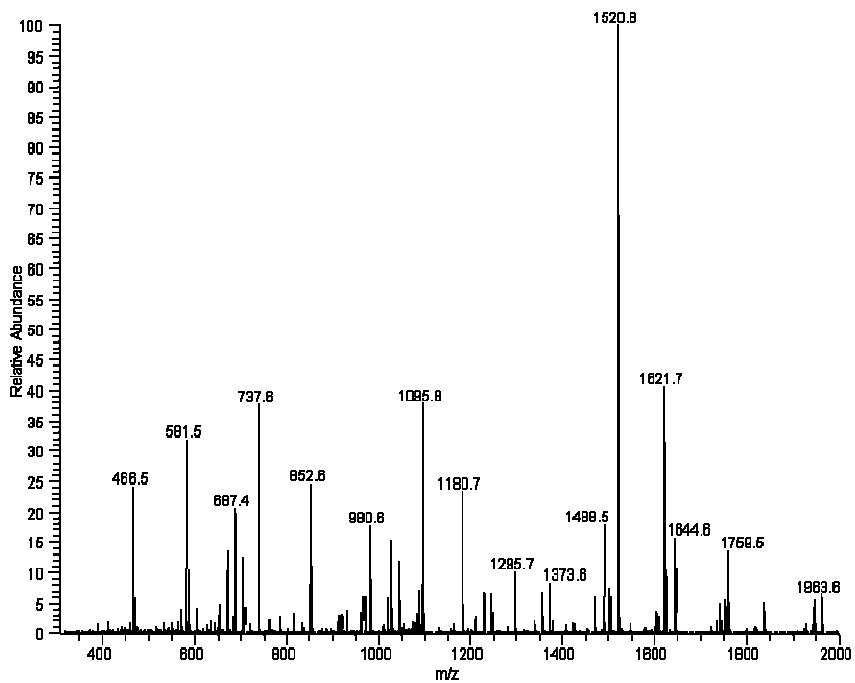
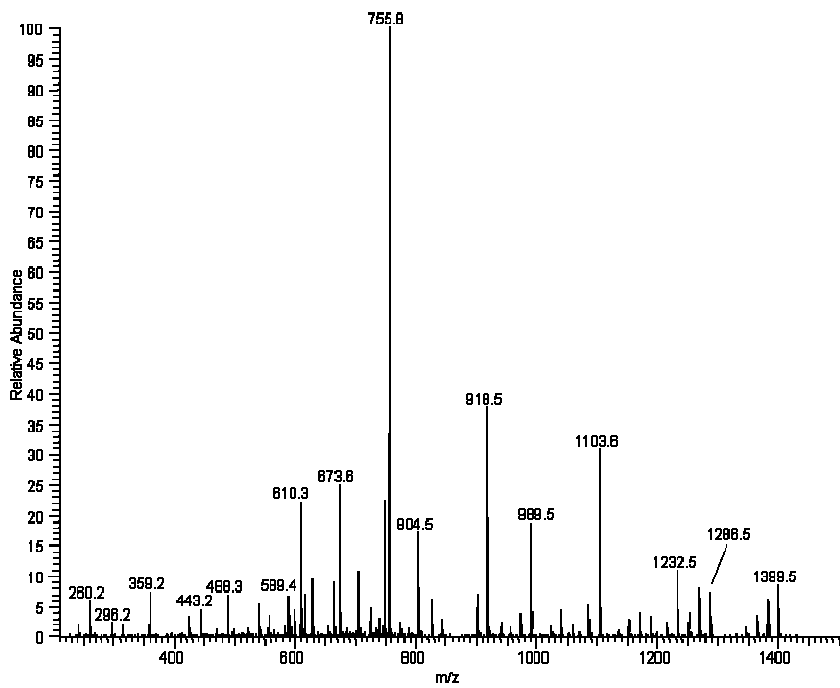
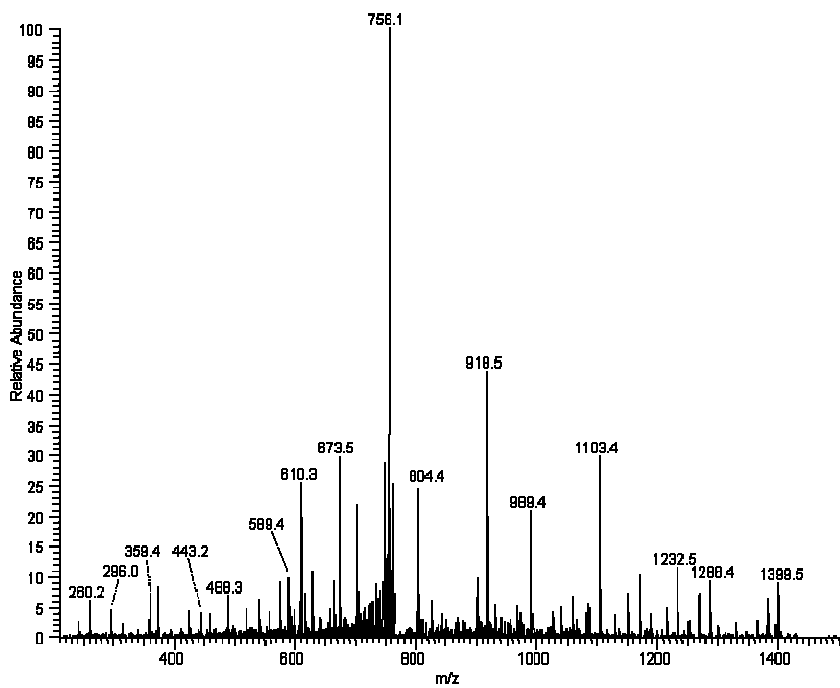
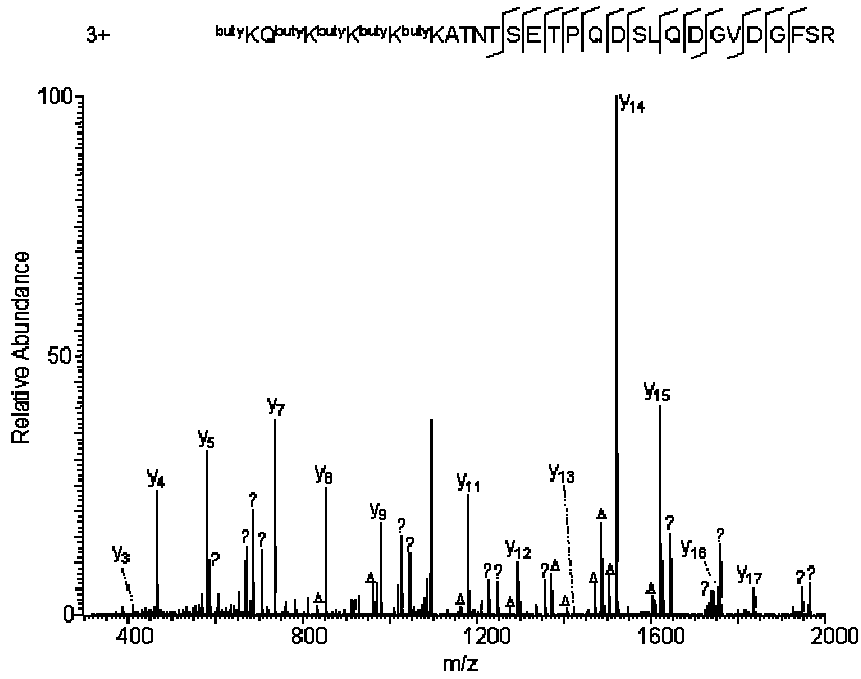


Figure S1  
(D)



**Figure S2**  
(A)



(B)

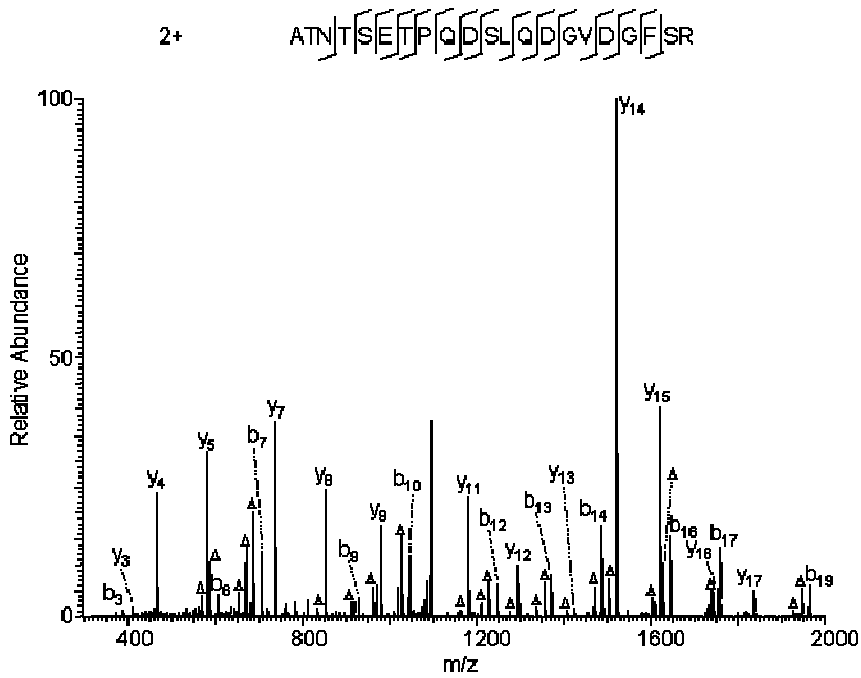
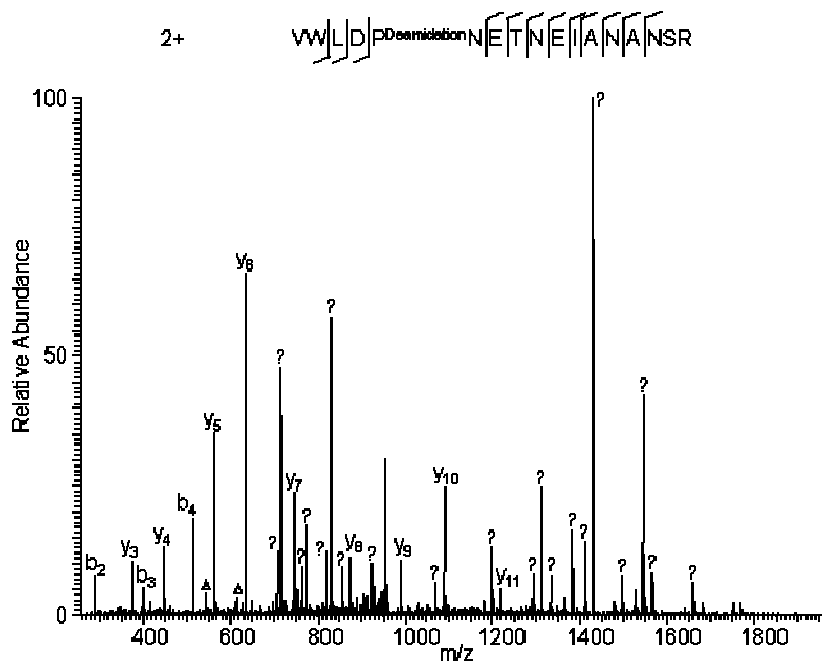


Figure S3

(A)



(B)

