



**Supplemental Fig. 1.** MS/MS spectra of peptide HC415-439 (residues 415-439 in the heavy chain) of Antibody B. (A) the wild type peptide; (B) the peptide with an Asn→Ser substitution. The sequence of the peptide, the fragmentation pattern, and the detected fragment ions are shown at the top of each panel. “y” and “b” ions are as described for Figure 4. Calculated  $m/z$  values are  $y_5 = 676.34$  and  $y_6 = 790.38$  when residue 434 is Asn, and  $y_5 = 676.34$  and  $y_6 = 763.37$  when residue 434 in Ser. The MS/MS spectra clearly show Ser substitution at Asn-434 [the difference in  $m/z$  value between  $y_6$  (763.41) and  $y_5$  (676.38) in Supplemental Fig. 1B is 87.03, not 114.04].