



Figure 2. Determination of the partially ^{18}O -labeled N-glycosylation site of murine uroplakin (UP1A) by Q-TOF tandem mass spectrometry. The upper trace shows the full MS/MS spectrum of the doubly charged precursor ion (m/z 1443.625 centroid monoisotopic) with the peptide sequence indicated by the y series ions. The lower trace is an expanded region of the upper trace, showing the partial ^{18}O -labelling of the precursor fragment ion containing the partial label as a doublet (859.440 and 861.480) that can be differentiated from those without the partial labeling (e.g. 744.429). From this spectrum the formerly glycosylated asparagine is identified as the labeled aspartate (product of PNGase F cleavage). This identification was done without knowing the amino acid sequence of the modified peptide *a priori* (the sequence of murine uroplakin was not present in any public databases at the time this experiment was done). Dr. Wenjun Mo provided this figure.