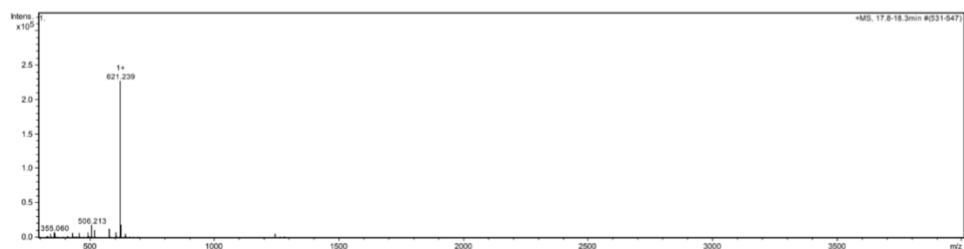


Spectrum for peak observed in green trace, after incubation with *Pb-M17*



Supplementary Figure S1. Representative mass spectrometry trace of LDPENF digestion by *Pb-M17*. After 45 mins of incubation, only one product at a molecular weight of 621 Da is observed. This correlated to the removal of single peptide Leu from the N-terminal of hexapeptide LDPENF, producing pentapeptide DPENF. Trace is representative of cleavage results obtained for each aminopeptidase – in each experiment only peptides of molecular weights 734 Da (LDPENF) and 621 Da (DPENF) were observed.