

**Supplementary Figure 2.** Collision-induced dissociation spectra from an LTQ orbitrap that have led to the identification of Hsp20 in an immunoprecipitate from a P myometrial strip lysates. y-ions are depicted in red, b-ions in blue and unassigned ions in red. The sequence of the two peptides <sup>134</sup>SALSPEGVLSIQAAPA<sup>146</sup> and <sup>15</sup>ASAPLPGLSAPGR<sup>27</sup> are on the top right of each spectrum annotated with the detected y-and b-ions with the same colour coding as in the spectra. The graphs on the right of the spectra illustrate the mass errors.