

**Table S1.** Calculated and measured masses for the selected (monomeric) allergens

Allergen	MW(calcd) Da <sup>1</sup>	MW(meas) Da <sup>2</sup>
nBos d 5 (A/B)	18 362/18 276	18 362/18 276
rBos d 5B	18 276	18 276
rBos d 5B-H146P	18 236	18 236
Alt a 1 <sup>3</sup>	14 664	15 237
Mal d 1	17 567	17 566
Dau c 1	17 338	17 337
Api g 1	16 188	16 188
Hev b 8	13 903	13 900
Phl p 6	11 790	11 789

<sup>1</sup> Calculated (average) mass based on the protein sequence (SwissProt, EMBL)

<sup>2</sup> Measured mass, averaged over observed charge state distributions (average uncertainty  $\pm 1$  Da). Mass measurements were performed with ESI FT-ICR instrument, employing denaturing solution conditions (MeCN/H<sub>2</sub>O/HOAc, 49.5:49.5:1.0, v/v) in which all allergens dissociated into monomers.

<sup>3</sup> The reason for the difference between calculated and measured masses is unknown; It is not apparent, however, if the expression vector construct of recombinant Alt a 1 from Biomay differs from that predicted based on the SwissProt sequence.