

Supplementary Table 1.

PTM modified peptides from grass pollen and dust mite allergen identified by bottom up mass spectrometry. Observed monoisotopic masses are presented as $[M+H]^+$ together with mass deviation in parts per million (ppm). The MS²-column provides a reference to spectra supporting the identifications. For glycopeptide identities inferred only by MS¹ mass measurement, MS²-spectra are not available (N/A). Hyp: hydroxyproline; Pen: pentose; dHex: deoxyhexose; Hex: hexose; HexNAc: N-acetylhexosamine.

Accession	Allergen	Peptide	Modifications	Observed [M+H] ⁺	Δppm	MS ²
P43213	Phl p 1	V ²⁷ PPGNITATYGDK ⁴⁰	1Hyp; Pen ₁ dHex ₁ Hex ₂ HexNAc ₂	2454.098	2.4	Fig. S4
P43213	Phl p 1	V ²⁷ PPGNITATYGDK ⁴⁰	1Hyp; Pen ₁ dHex ₁ Hex ₃ HexNAc ₂	2616.151	2.3	Fig. S4
P43213	Phl p 1	I ²⁴ PKVPPGNITATYGDK ⁴⁰	2Hyp; Pen ₁ dHex ₁ Hex ₂ HexNAc ₂	2808.330	4.3	Fig. S4
P43213	Phl p 1	I ²⁴ PKVPPGNITATYGDK ⁴⁰	2Hyp; Pen ₂ dHex ₁ Hex ₂ HexNAc ₂	2940.373	4.1	Fig. S4
P43213	Phl p 1	I ²⁴ PKVPPGNITATYGDK ⁴⁰	2Hyp; Pen ₁ dHex ₁ Hex ₃ HexNAc ₂	2970.382	3.7	Fig. S4
P43213	Phl p 1	I ²⁴ PKVPPGNITATYGDK ⁴⁰	2Hyp; Pen ₃ dHex ₁ Hex ₂ HexNAc ₂	3072.411	2.6	Fig. S4
P43213	Phl p 1	I ²⁴ PKVPPGNITATYGDK ⁴⁰	2Hyp; Pen ₂ dHex ₁ Hex ₃ HexNAc ₂	3102.425	3.7	Fig. S4
P43213	Phl p 1	I ²⁴ PKVPPGNITATYGDK ⁴⁰	2Hyp; Pen ₄ dHex ₁ Hex ₂ HexNAc ₂	3204.454	2.7	Fig. S4
P43213	Phl p 1	I ²⁴ PKVPPGNITATYGDK ⁴⁰	2Hyp; Pen ₃ dHex ₁ Hex ₃ HexNAc ₂	3234.464	2.0	Fig. S4
P43213	Phl p 1	I ²⁴ PKVPPGNITATYGDK ⁴⁰	2Hyp; Pen ₄ dHex ₁ Hex ₃ HexNAc ₂	3366.507	2.6	Fig. S4
Q40960	Phl p 5a	A ²⁶ DLGYGPATPAAPAAGYTPATPAAPAEAPAGK ⁵⁸	7Hyp	3076.448	3.0	Fig. S6
Q40960	Phl p 5a	A ²⁶ DLGYGPATPAAPAAGYTPATPAAPAEAPAGK ⁵⁸	7Hyp; Pen ₂	3340.516	-2.3	Fig. S6
Q40963	Phl p 5b	A ²⁰ DAGYAPATPAAGAAAGK ³⁸	2Hyp	1633.784	1.4	Fig. S6
Q40963	Phl p 5b	A ²⁰ DAGYAPATPAAGAAAGK ³⁸	2Hyp; Pen ₁	1765.828	2.0	Fig. S6
O81341	Phl p 5	A ²⁶ DLGYGPATPAAPAAGYTPATPAAPAGAEAPAGK ⁵⁸	6Hyp; Pen ₇	3970.723	-0.2	Fig. S7
P08176	Der p 1	N ¹⁵⁰ QSLDLAEQELVDCASQHGCHGDTIPR ¹⁷⁶	HexNAc	3253.467	5.7	Fig. S11
P08176	Der p 1	N ¹⁵⁰ QSLDLAEQELVDCASQHGCHGDTIPR ¹⁷⁶	HexNAc ₂	3456.536	2.4	Fig. S11
P08176	Der p 1	E ²²⁷ ALAQTHSAIAVIIGIKDLDAFR ²⁴⁹	Hex	2614.405	-1.3	Fig. S13
P16311	Der f 1	N ¹⁵¹ TSLDLSEQELVDCASQHGCHGDTIPR ¹⁷⁷	HexNAc	3242.448	4.6	Fig. S12
P16311	Der f 1	N ¹⁵¹ TSLDLSEQELVDCASQHGCHGDTIPR ¹⁷⁷	HexNAc ₂	3445.520	2.9	Fig. S12
P16311	Der f 1	R ²⁰⁴ PNSQHYGISNYCQYPPDVQKIR ²²⁷	Hex	3095.492	-2.6	Fig. S13
P16311	Der f 1	E ²²⁸ ALTQHTAIIVIGIKDLR ²⁴⁷	Hex	2325.311	3.6	Fig. S13
P49278	Der p 2	G ⁴⁹ KPFQLEAVFEANQNTKTAK ⁶⁸	Hex	2383.221	2.7	Fig. S8
P49278	Der p 2	G ⁴⁹ KPFQLEAVFEANQNTKTAK ⁶⁸	Hex ₂	2545.265	-0.9	Fig. S8
P49278	Der p 2	G ⁴⁹ KPFQLEAVFEANQNTKTAK ⁶⁸	Hex ₃	2707.324	1.6	N/A
P49278	Der p 2	G ⁴⁹ KPFQLEAVFEANQNTKTAK ⁶⁸	Hex ₄	2869.377	1.6	N/A
P49278	Der p 2	G ⁴⁹ KPFQLEAVFEANQNTKTAK ⁶⁸	Hex ₅	3031.424	-0.5	N/A
P49278	Der p 2	C ⁹⁵ PLVKGQQYDIK ¹⁰⁶	Hex	1610.813	2.1	Fig. S15
P49278	Der p 2	G ¹⁰⁰ QQYDIKYTWNVPK ¹¹³	Hex	1901.930	0.9	Fig. S8
P49278	Der p 2	I ¹¹⁴ APKSENVVTVK ¹²⁶	Hex	1545.880	1.2	Fig. S8
Q00855	Der f 2	C ⁹⁵ PLVKGQQYDIK ¹⁰⁶	Hex	1610.812	1.2	Fig. S9
Q00855	Der f 2	G ⁴⁹ KPFTLEALFDANQNTK ⁶⁵	Hex	2056.030	3.2	Fig 4
Q00855	Der f 2	G ⁴⁹ KPFTLEALFDANQNTK ⁶⁵	Hex ₂	2218.080	1.8	N/A
Q00855	Der f 2	G ⁴⁹ KPFTLEALFDANQNTK ⁶⁵	Hex ₃	2380.132	1.3	N/A
Q00855	Der f 2	G ⁴⁹ KPFTLEALFDANQNTK ⁶⁵	Hex ₄	2542.185	1.3	N/A
Q00855	Der f 2	G ⁴⁹ KPFTLEALFDANQNTK ⁶⁵	Hex ₅	2704.239	1.6	N/A
Q00855	Der f 2	G ⁴⁹ KPFTLEALFDANQNTK ⁶⁵	Hex ₆	2866.291	1.3	N/A
Q00855	Der f 2	G ⁴⁹ KPFTLEALFDANQNTK ⁶⁵	Hex ₇	3028.345	1.6	N/A
Q00855	Der f 2	G ⁴⁹ KPFTLEALFDANQNTK ⁶⁵	Hex ₈	3190.405	3.8	N/A
Q00855	Der f 2	G ⁴⁹ KPFTLEALFDANQNTK ⁶⁵	Hex ₉	3352.455	2.8	N/A
Q00855	Der f 2	G ¹⁰⁰ QQYDIKYTWNVPK ¹¹³	Hex	1901.932	2.2	Fig. S8
Q00855	Der f 2	G ¹⁰⁰ QQYDIKYTWNVPK ¹¹³	Hex ₂	2063.983	1.1	N/A
Q00855	Der f 2	I ¹¹⁴ APKSENVVTVK ¹²⁶	Hex	1545.873	-0.2	Fig. S9