

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Alder	3517	Aln g 1	P38948	730050	1	MGVFNVEAETPSVIP	15	3324.0008
Alder	3517	Aln g 1	P38948	730050	11	PSVIPAAARLFKAFIL	15	3324.0004
Alder	3517	Aln g 1	P38948	730050	16	AARLFKAFILDGDKL	15	3324.0003
Alder	3517	Aln g 1	P38948	730050	76	DRVNFKYSFVSIEGG	15	3324.0002
Alder	3517	Aln g 1	P38948	730050	111	GGSLKISNKFHTKG	15	3324.0007
Alder	3517	Aln g 1	P38948	730050	136	IEKEKAVGLLKAVES	15	3324.0006
Alder	3517	Aln g 1	P38948	730050	141	AVGLLKAVESYLLAH	15	3324.0001
Alder	3517	Aln g 1	P38948	730050	146	KAVESYLLAHSDAYN	15	3324.0005
Alder	3517	Aln g 4	O81701	14423845	56	TDGDGFISFQEFNTF	15	3324.0010
Alder	3517	Aln g 4	O81701	14423845	61	FISFQEFNTFARANR	15	3324.0009
Alder	3517	Aln g 4	O81701	14423845	71	ARANRGLVKDVAKIF	15	3337.0001
Alternaria rot fungus	5599	Alt a 1	P79085	14423645	1	MQFTTIASLFAAAGL	15	3324.0012
Alternaria rot fungus	5599	Alt a 1	P79085	14423645	6	IASLFAAAGLAAAAP	15	3324.0015
Alternaria rot fungus	5599	Alt a 1	P79085	14423645	11	AAAGLAAAAPLESRQ	15	3324.0017
Alternaria rot fungus	5599	Alt a 1	P79085	14423645	111	KVSDDTIVVATATLP	15	3324.0013
Alternaria rot fungus	5599	Alt a 1	P79085	14423645	116	ITYVATATLPNYCRA	15	3324.0014
Alternaria rot fungus	5599	Alt a 1	P79085	14423645	141	QGVADAYITLVTLPK	15	3324.0011
Alternaria rot fungus	5599	Alt a 1	P79085	14423645	143	VADAYITLVTLPKSS	15	3324.0016
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	16	QPTGLFINNEFVKAV	15	3324.0023
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	56	DVDIAVAARKAFNG	15	3324.0032
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	81	GKLLNKLADLFEKNA	15	3324.0022
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	141	DTAPDSFNIRKEPI	15	3324.0021
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	146	SFNIRKEPIGVCQG	15	3324.0033
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	161	IIPWNFPILMWSWKI	15	3324.0019
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	301	GSRIYVQEEIYDKFI	15	3324.0025
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	306	VQEEIYDKFIQRFKE	15	3324.0024
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	311	YDKFIQRFKERAQAN	15	3324.0028
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	341	VSQLQFDRIMGYIEE	15	3324.0034
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	371	GDKGYFIEPTIFSNV	15	3324.0018
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	421	YGLAAAVHTSNLTTA	15	3324.0031
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	431	NLTTAIEVANALRAG	15	3324.0027
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	436	IEVANALRAGTVWVN	15	3324.0030
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	446	TVWVNSYNTLHWQLP	15	3324.0020
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	476	AALDNVIQTKTVSIR	15	3324.0026
Alternaria rot fungus	5599	Alt a 10	P42041	76666767	481	YIQTKTYSIRLGDVL	15	3324.0029
Alternaria rot fungus	5599	Alt a 12	P49148	1350779	1	MSTSELATSYAALIL	15	3324.0036
Alternaria rot fungus	5599	Alt a 12	P49148	1350779	6	LATSYAALILADDGV	15	3324.0035
Alternaria rot fungus	5599	Alt a 12	P49148	1350779	26	KLQSLIKAAKIEEVE	15	3324.0037
Alternaria rot fungus	5599	Alt a 12	P49148	1350779	41	PIWTTLFAKALEGKD	15	3324.0039
Alternaria rot fungus	5599	Alt a 12	P49148	1350779	76	LLLRWRAADAAPAAE	15	3324.0038
Alternaria rot fungus	5599	Alt a 13	Q6R4B4	41057621	6	SELAVQKLVLFVAVKG	15	3324.0041
Alternaria rot fungus	5599	Alt a 13	Q6R4B4	41057621	11	QKLVLFVAVKGTATST	15	3324.0044
Alternaria rot fungus	5599	Alt a 13	Q6R4B4	41057621	26	HNTVRLPILLLDELGV	15	3324.0049
Alternaria rot fungus	5599	Alt a 13	Q6R4B4	41057621	76	DTLRAWESTSTLMYI	15	3324.0048
Alternaria rot fungus	5599	Alt a 13	Q6R4B4	41057621	111	INNWLTLHTAALGPT	15	3324.0043
Alternaria rot fungus	5599	Alt a 13	Q6R4B4	41057621	126	AKYWLYFYKLIHPEKL	15	3324.0040
Alternaria rot fungus	5599	Alt a 13	Q6R4B4	41057621	141	PKTIEKLRNSNITVQY	15	3324.0051
Alternaria rot fungus	5599	Alt a 13	Q6R4B4	41057621	146	KLRNSNITVQYDILER	15	3324.0050
Alternaria rot fungus	5599	Alt a 13	Q6R4B4	41057621	166	GQQYLAWLNEKFKRS	15	3324.0045
Alternaria rot fungus	5599	Alt a 13	Q6R4B4	41057621	171	AWLNEKFKRSSYNRR	15	3324.0042
Alternaria rot fungus	5599	Alt a 13	Q6R4B4	41057621	191	LCYEKYRRVVRAGVK	15	3324.0046
Alternaria rot fungus	5599	Alt a 13	Q6R4B4	41057621	201	RAGVKVAQTARVVCV	15	3324.0047
Alternaria rot fungus	5599	Alt a 3	P78983	1850544	41	SAKNALESYAYSRLN	15	3324.0053
Alternaria rot fungus	5599	Alt a 3	P78983	1850544	46	LESYAYSRLNLTSDS	15	3324.0052
Alternaria rot fungus	5599	Alt a 3	P78983	1850544	91	ATKDEYESQKKELEG	15	3337.0002
Alternaria rot fungus	5599	Alt a 4	Q00002	1006624	26	ADKVVLVAYFAADDK	15	3324.0054
Alternaria rot fungus	5599	Alt a 4	Q00002	1006624	56	NFLFGATNDAALAKA	15	3324.0061
Alternaria rot fungus	5599	Alt a 4	Q00002	1006624	96	MRTYPRLRKVASTPL	15	3324.0060
Alternaria rot fungus	5599	Alt a 4	Q00002	1006624	101	RLRKVASTPLIGEVG	15	3324.0059
Alternaria rot fungus	5599	Alt a 4	Q00002	1006624	116	PETYAGYMAAGIPLA	15	3324.0057
Alternaria rot fungus	5599	Alt a 4	Q00002	1006624	121	GYMAAGIPLAYIFAE	15	3324.0056
Alternaria rot fungus	5599	Alt a 4	Q00002	1006624	126	GIPLAYIFAETPEER	15	3324.0058
Alternaria rot fungus	5599	Alt a 4	Q00002	1006624	156	GEINFATIDAKSFGQ	15	3324.0062
Alternaria rot fungus	5599	Alt a 4	Q00002	1006624	286	DELSKLVTIARVDAT	15	3324.0063
Alternaria rot fungus	5599	Alt a 4	Q00002	1006624	306	DEIQGFLPSSLFPLA	15	3324.0055
Alternaria rot fungus	5599	Alt a 5	P42037	467617	1	MKHLAAYLLGLGGN	15	3324.0064
Alternaria rot fungus	5599	Alt a 5	P42037	467617	21	ADVKAVLESVGLHEAD	15	3337.0003
Alternaria rot fungus	5599	Alt a 5	P42037	467617	51	INELIASGSEKLASV	15	3324.0065
Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	1	MTITKIHARSVYDSR	15	3324.0075

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Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	106	LGANAILGVSMIAIAK	15	3324.0069
Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	111	ILGVSMIAIAKAAAEE	15	3324.0070
Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	116	MAIAKAAAAAEKGVPL	15	3324.0074
Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	161	GGRLAFQEFMIVPCE	15	3324.0073
Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	186	GAEVYQKLKALAKKT	15	3324.0072
Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	241	IKIAMDVASSEFYKA	15	3324.0077
Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	271	KSKWLTYEQLAEMYK	15	3324.0068
Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	306	EAWSYFFKTYDGGQIV	15	3324.0067
Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	336	IELKSCNALLLKVNQ	15	3324.0066
Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	341	CNALLLKNVQIGTIT	15	3324.0071
Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	366	GAGWGVMSVSHRSGET	15	3324.0078
Alternaria rot fungus	5599	Alt a 6	Q9HDT3	14423684	406	ERLAKLNQILRIEEE	15	3324.0076
Alternaria rot fungus	5599	Alt a 7	P42058	467619	6	AIVYYSMYGHKKMA	15	3324.0085
Alternaria rot fungus	5599	Alt a 7	P42058	467619	31	GGDAKLFQVAETLPQ	15	3324.0082
Alternaria rot fungus	5599	Alt a 7	P42058	467619	36	LFQVAETLPQEVLDK	15	3324.0084
Alternaria rot fungus	5599	Alt a 7	P42058	467619	66	PAVLEEFDGILFGIP	15	3324.0087
Alternaria rot fungus	5599	Alt a 7	P42058	467619	106	FWGKYAGVVFSTGTL	15	3324.0086
Alternaria rot fungus	5599	Alt a 7	P42058	467619	141	IYVPLGYKTAFSMLA	15	3324.0079
Alternaria rot fungus	5599	Alt a 7	P42058	467619	146	GYKTAFSMLANLDEV	15	3324.0081
Alternaria rot fungus	5599	Alt a 7	P42058	467619	181	SELELNIAQAQKCAF	15	3324.0083
Alternaria rot fungus	5599	Alt a 7	P42058	467619	190	AQKCAFYEAVAKAHQ	15	3324.0080
Alternaria rot fungus	5599	Alt a 8	PoCoY4	23344707	6	PQATELKDLSLKGK	15	3324.0090
Alternaria rot fungus	5599	Alt a 8	PoCoY4	23344707	11	LKDLSLKGKVVIVT	15	3324.0091
Alternaria rot fungus	5599	Alt a 8	PoCoY4	23344707	46	ADLAITYNSRAEGAE	15	3324.0094
Alternaria rot fungus	5599	Alt a 8	PoCoY4	23344707	151	TGSLVITSSMSGHIA	15	3324.0093
Alternaria rot fungus	5599	Alt a 8	PoCoY4	23344707	176	VAKAGCIHLAKSLAN	15	3324.0096
Alternaria rot fungus	5599	Alt a 8	PoCoY4	23344707	181	CIHLAKSLANEWRDF	15	3324.0095
Alternaria rot fungus	5599	Alt a 8	PoCoY4	23344707	216	QDIQKLWHSMPMGR	15	3324.0092
Alternaria rot fungus	5599	Alt a 8	PoCoY4	23344707	236	ELKGAYVVFASDASS	15	3324.0088
Alternaria rot fungus	5599	Alt a 8	PoCoY4	23344707	241	YVVFASDASSYCTGS	15	3324.0089
American cockroach	6978	Per a 1	O18527	2231297	1	INEIHSIIGLPPFPV	15	3324.1371
American cockroach	6978	Per a 1	O18527	2231297	41	DELKALFQEKLETSP	15	3324.1356
American cockroach	6978	Per a 1	O18527	2231297	51	LETSPDFKALYDAIR	15	3324.1378
American cockroach	6978	Per a 1	O18527	2231297	56	DFKALYDAIRSPPEF	15	3324.1375
American cockroach	6978	Per a 1	O18527	2231297	66	SPEFQSIISTLNAMQ	15	3324.1359
American cockroach	6978	Per a 1	O18527	2231297	71	SIISTLNAMQRSEHH	15	3324.1357
American cockroach	6978	Per a 1	O18527	2231297	91	KGVDVDHFIQLIRAL	15	3324.1363
American cockroach	6978	Per a 1	O18527	2231297	96	DHFIQLIRALFGLSR	15	3324.1347
American cockroach	6978	Per a 1	O18527	2231297	101	LIRALFGLSRAARNL	15	3324.1364
American cockroach	6978	Per a 1	O18527	2231297	106	FGLSRAARNLQDDLN	15	3324.1369
American cockroach	6978	Per a 1	O18527	2231297	116	QDDLNDLHLSLEPIS	15	3324.1373
American cockroach	6978	Per a 1	O18527	2231297	151	LHADDFFHKIITTIEA	15	3324.1379
American cockroach	6978	Per a 1	O18527	2231297	156	FHKIITTIEALPEFA	15	3324.1351
American cockroach	6978	Per a 1	O18527	2231297	166	LPEFANFYNFLKEHG	15	3324.1355
American cockroach	6978	Per a 1	O18527	2231297	171	NFYNFLKEHGLDVVD	15	3324.1372
American cockroach	6978	Per a 1	O18527	2231297	181	LDVVDYINEIHSIIG	15	3324.1361
American cockroach	6978	Per a 1	O18527	2231297	186	YINEIHSIIGLPPFV	15	3324.1365
American cockroach	6978	Per a 1	O18527	2231297	211	VGINGLIDDVIAILP	15	3324.1368
American cockroach	6978	Per a 1	O18527	2231297	216	LIDDVIAILPVDELK	15	3324.1362
American cockroach	6978	Per a 1	O18527	2231297	221	IAILPVDELKALFQE	15	3324.1370
American cockroach	6978	Per a 1	O18527	2231297	226	VDELKALFQEKLETS	15	3324.1360
American cockroach	6978	Per a 1	O18527	2231297	241	PDFKALYDAIRSPPEF	15	3324.1380
American cockroach	6978	Per a 1	O18527	2231297	251	RSPEFQSIISTLNAM	15	3324.1381
American cockroach	6978	Per a 1	O18527	2231297	306	DLNDFLALIPTDQIL	15	3324.1348
American cockroach	6978	Per a 1	O18527	2231297	311	LALIPTDQILAIAMD	15	3324.1377
American cockroach	6978	Per a 1	O18527	2231297	316	TDQILAIAMDYLAND	15	3324.1354
American cockroach	6978	Per a 1	O18527	2231297	321	AIAMDYLANDAEVQE	15	3324.1374
American cockroach	6978	Per a 1	O18527	2231297	331	AEVQELVAYLQSDDF	15	3324.1350
American cockroach	6978	Per a 1	O18527	2231297	341	QSDDFFHKIITTIEAL	15	3324.1353
American cockroach	6978	Per a 1	O18527	2231297	346	HKIITTIEALPEFAN	15	3324.1352
American cockroach	6978	Per a 1	O18527	2231297	356	PEFANFYNFLKEHGL	15	3324.1349
American cockroach	6978	Per a 1	O18527	2231297	361	FYNFLKEHGLDVVDY	15	3324.1376
American cockroach	6978	Per a 1	O18527	2231297	371	DVVDYINEIHSIIGL	15	3324.1358
American cockroach	6978	Per a 1	O18527	2231297	431	DFKALYDAIDLRSSR	15	3324.1366
American cockroach	6978	Per a 1	O18527	2231297	432	FKALYDAIDLRSRRA	15	3324.1367
American cockroach	6978	Per a 10	Q1MoX9	60678799	1	MLRVLVLAASLIACSL	15	3324.1382
American cockroach	6978	Per a 10	Q1MoX9	60678799	6	VLAASLIACSLSAVPK	15	3324.1386
American cockroach	6978	Per a 10	Q1MoX9	60678799	41	YPYQLSFEYYGSHMC	15	3324.1383
American cockroach	6978	Per a 10	Q1MoX9	60678799	96	HQATQLIANPNYDYY	15	3324.1393

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Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
American cockroach	6978	Per a 10	Q1MoX9	60678799	106	NYDYYTIDFDVAVAR	15	3324.1388
American cockroach	6978	Per a 10	Q1MoX9	60678799	111	TIDFDVAVARVSPAF	15	3324.1385
American cockroach	6978	Per a 10	Q1MoX9	60678799	116	VAVARVSPAFSYGTG	15	3324.1389
American cockroach	6978	Per a 10	Q1MoX9	60678799	161	TLPSQLQVVSVPIVS	15	3324.1387
American cockroach	6978	Per a 10	Q1MoX9	60678799	166	LQVVSVPVSRSECN	15	3324.1390
American cockroach	6978	Per a 10	Q1MoX9	60678799	236	PGVYSNVASLKGFFIT	15	3324.1392
American cockroach	6978	Per a 10	Q1MoX9	60678799	241	NVASLKGFFITEQTGV	15	3324.1391
American cockroach	6978	Per a 10	Q1MoX9	60678799	242	VASLKGFFITEQTGVN	15	3324.1384
American cockroach	6978	Per a 3	Q25640	1580794	1	LNAFNMYFRYYIPTW	15	3324.1401
American cockroach	6978	Per a 3	Q25640	1580794	6	MYFRYYIPTWFNFTTL	15	3324.1397
American cockroach	6978	Per a 3	Q25640	1580794	31	QFYTYHQIYARYFL	15	3324.1399
American cockroach	6978	Per a 3	Q25640	1580794	36	YHQIYARYFLERLSN	15	3324.1398
American cockroach	6978	Per a 3	Q25640	1580794	41	ARYFLERLSNSLDPV	15	3324.1395
American cockroach	6978	Per a 3	Q25640	1580794	56	KPFQYSKPLKTYGYNP	15	3324.1409
American cockroach	6978	Per a 3	Q25640	1580794	91	NIDLFFVYSDIKNYES	15	3324.1411
American cockroach	6978	Per a 3	Q25640	1580794	141	GTSNSPYQYFYGSIF	15	3324.1408
American cockroach	6978	Per a 3	Q25640	1580794	146	PYQYFYGSIFHFYRL	15	3324.1402
American cockroach	6978	Per a 3	Q25640	1580794	151	YGSIFHFYRLLVGHV	15	3324.1394
American cockroach	6978	Per a 3	Q25640	1580794	156	HFYRLLVGHVVDPYH	15	3324.1412
American cockroach	6978	Per a 3	Q25640	1580794	191	FYQLWKRIDHIVQKY	15	3324.1404
American cockroach	6978	Per a 3	Q25640	1580794	196	KRIDHIVQKYKRNRLP	15	3324.1410
American cockroach	6978	Per a 3	Q25640	1580794	231	KLYTYFEHFEHSLGN	15	3324.1405
American cockroach	6978	Per a 3	Q25640	1580794	236	FEHFEHSLGNAMYLG	15	3324.1413
American cockroach	6978	Per a 3	Q25640	1580794	271	PFTYNIEVSSDKAQD	15	3324.1414
American cockroach	6978	Per a 3	Q25640	1580794	281	DKAQDVYVRIFLGPK	15	3324.1407
American cockroach	6978	Per a 3	Q25640	1580794	346	YRNLFKKVSDALEGK	15	3324.1403
American cockroach	6978	Per a 3	Q25640	1580794	386	GGQTFTFYVIVTPYV	15	3324.1396
American cockroach	6978	Per a 3	Q25640	1580794	391	TFYVIVTPYVKQDEH	15	3324.1400
American cockroach	6978	Per a 3	Q25640	1580794	446	YTPNMYFKDVFVIFHK	15	3324.1415
American cockroach	6978	Per a 3	Q25640	1580794	451	YFKDVFVIFHKKYDEV	15	3324.1406
American cockroach	6978	Per a 6	Q1MoY3	60678791	6	DEQIQLLKKAFDAFD	15	3324.1420
American cockroach	6978	Per a 6	Q1MoY3	60678791	31	MVGITILEMLGHPLDD	15	3324.1418
American cockroach	6978	Per a 6	Q1MoY3	60678791	61	GELEFQEFVTLAARF	15	3324.1417
American cockroach	6978	Per a 6	Q1MoY3	60678791	66	QEFVTLAARFLVEED	15	3324.1416
American cockroach	6978	Per a 6	Q1MoY3	60678791	101	GYITTTVLRILKEL	15	3324.1419
American cockroach	6978	Per a 6	Q1MoY3	60678791	106	TVLREILKELDDKLT	15	3324.1421
American cockroach	6978	Per a 7	Q9UB83	4468639	101	RSEERLATATAKLAE	15	3324.1423
American cockroach	6978	Per a 7	Q9UB83	4468639	191	VELEEELRVVGNLTK	15	3324.1425
American cockroach	6978	Per a 7	Q9UB83	4468639	216	LREEEYKQIKTLTT	15	3324.1424
American cockroach	6978	Per a 7	Q9UB83	4468639	221	YKQIKTLTTRLKEA	15	3324.1422
Ash	38873	Fra e 1	Q6U740	34978692	21	DTCRARFITKLSSEFI	15	3324.1102
Ash	38873	Fra e 1	Q6U740	34978692	26	RFITKLSSEFITGASV	15	3324.1101
Ash	38873	Fra e 1	Q6U740	34978692	31	LSEFITGASVRLQCR	15	3324.1105
Ash	38873	Fra e 1	Q6U740	34978692	76	NEFCEITLLSSGRKD	15	3324.1106
Ash	38873	Fra e 1	Q6U740	34978692	101	KPSLKFILNTVNGTT	15	3324.1103
Ash	38873	Fra e 1	Q6U740	34978692	121	LGFFKKEALPQCAQV	15	3324.1104
Aspergillus fumigatus	330879	Asp f 1	P67875	66845737	1	MVAIKNLFLLAATAV	15	3324.0121
Aspergillus fumigatus	330879	Asp f 1	P67875	66845737	6	NLFLLAATAVSVLAA	15	3324.0122
Aspergillus fumigatus	330879	Asp f 1	P67875	66845737	46	DKRLLYSQAKAESNS	15	3324.0123
Aspergillus fumigatus	330879	Asp f 1	P67875	66845737	116	DDHYLLEFPPTFPDGH	15	3337.0014
Aspergillus fumigatus	330879	Asp f 1	P67875	66845737	146	ARVIYTYPNKVFCGI	15	3324.0124
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	1	MVVFSKVTAVVVGSL	15	3324.0128
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	6	KVTAVVVGSLTIVSA	15	3324.0129
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	11	VVGLSTIVSAVPPVQ	15	3324.0126
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	16	TIVSAVPPVQPRKGF	15	3324.0134
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	26	PRKGFNTINQVARPVT	15	3324.0136
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	41	NKKTVNLPVAVYANAL	15	3324.0132
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	46	NLPVAVYANALTKYGG	15	3324.0131
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	61	TVPDSVKAASSGSA	15	3324.0137
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	106	ADLWVFSSELSASQS	15	3324.0127
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	171	VEAASHISSQFVQDK	15	3324.0125
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	186	DNDGLGLAFSSINT	15	3324.0133
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	191	LGLAFSSINTVSPRP	15	3324.0135
Aspergillus fumigatus	330879	Asp f 10	Q12547(IUIS)	85541049	221	LFAVTLKYHAPGTVD	15	3324.0130
Aspergillus fumigatus	746128	Asp f 11	Q9Y7F6	5019414	11	VFFDVEYAPVGTAE	15	3324.0143
Aspergillus fumigatus	746128	Asp f 11	Q9Y7F6	5019414	26	KVGRVFNFLFDKDV	15	3324.0144
Aspergillus fumigatus	746128	Asp f 11	Q9Y7F6	5019414	61	STFHRIIPNFMIQGG	15	3324.0140
Aspergillus fumigatus	746128	Asp f 11	Q9Y7F6	5019414	101	KHDKKGILSMANAGP	15	3324.0141
Aspergillus fumigatus	746128	Asp f 11	Q9Y7F6	5019414	116	NTNGSQFFITTAVTS	15	3324.0138

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Aspergillus fumigatus	746128	Asp f 11	Q9Y7F6	5019414	121	QFFITTAVTSWLDGK	15	3324.0139
Aspergillus fumigatus	746128	Asp f 11	Q9Y7F6	5019414	146	KSYSVVKIEALGSS	15	3324.0142
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	1	MSSETFEFQAEISQL	15	3324.0177
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	6	FEFQAEISQLSLII	15	3324.0146
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	11	EISQLLSLIINTVYS	15	3324.0151
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	16	LSLIINTVYSNKEIF	15	3324.0165
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	26	NKEIFLRELISNASD	15	3324.0147
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	31	LRELISNASDALDKI	15	3324.0156
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	41	ALDKIRYQSLSDPTK	15	3324.0172
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	96	IARSGTKQFMELSA	15	3324.0173
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	101	TKQFMEALSAGADIS	15	3324.0180
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	116	MIGQFGVGFYSAYLV	15	3324.0166
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	121	GVGFYSAYLVADRVT	15	3324.0149
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	126	SAYLVADRVTVVSKN	15	3324.0171
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	171	TKIILHLKDEQTDYL	15	3324.0179
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	191	KEVVRKHSEFISYPI	15	3324.0161
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	196	KHSEFISYPIYLHVL	15	3324.0155
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	281	ITQEEYASFYKLSLN	15	3324.0152
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	301	LAVKHFSVEGQLEFR	15	3324.0170
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	311	QLEFRAILYVPKRAP	15	3324.0150
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	336	NNIKLYVRRVFITDD	15	3324.0157
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	341	YVRRVFITDDATDLI	15	3324.0158
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	391	KNIVKKTLELNFNEIA	15	3324.0175
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	406	EDREQDFKFYSAFSK	15	3324.0159
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	411	FDKFYSAFSKNIKLG	15	3324.0154
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	436	LAKLLRYQSTKSGDE	15	3324.0176
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	466	KQIYYITGESIKAVA	15	3324.0164
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	476	IKAVAKSPFLDSLKQ	15	3324.0174
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	491	KNFEVLFVDPIDEY	15	3324.0163
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	541	EKEYENLAKSLKNIL	15	3324.0160
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	546	NLAKSLKNILGDKVE	15	3324.0178
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	581	GWSANMERIMKAQAL	15	3324.0167
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	586	MERIMKAQALRDTSM	15	3324.0168
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	631	ENDRTVKSITQLLFE	15	3324.0153
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	636	VKSITQLLFETSLLV	15	3324.0145
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	641	QLLFETSLLVSGFTI	15	3324.0148
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	661	FAERIHKLVSGLGNI	15	3324.0162
Aspergillus fumigatus	330879	Asp f 12	P40292	1930153	666	HKLVSGLGNIDEEEA	15	3324.0169
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	1	MLSIKRTLIIIGAVL	15	3324.0183
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	6	RTLIIIGAVLPAVFG	15	3324.0181
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	81	KSYKIKDFAAYAGSF	15	3324.0189
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	111	HVEEDQIWLALDALT	15	3324.0182
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	116	QIWLALDALTQKGAP	15	3324.0186
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	141	QASTDYIYDTSAGAG	15	3324.0187
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	146	YIYDTSAGAGTYAYV	15	3324.0195
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	211	KTNLLSVKVFQGESS	15	3324.0185
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	216	SVKVFQGESSSTI	15	3324.0193
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	231	LDGFNWAVNDIVSKG	15	3324.0192
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	256	LGGGYSYAFNNAVEN	15	3324.0190
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	296	SAPNALTVAAINKSN	15	3324.0194
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	351	ATPHIVGLSVYLMGL	15	3324.0184
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	356	VGLSVYLMGLENLSG	15	3324.0188
Aspergillus fumigatus	330879	Asp f 13	P28296	83305202	361	YLMGLENLSGPAAVT	15	3324.0191
Aspergillus fumigatus	330879	Asp f 15	O60022	66853233	1	MKFTTPIISLISLFVS	15	3324.0197
Aspergillus fumigatus	330879	Asp f 15	O60022	66853233	6	PISLISLIVSSALAA	15	3324.0196
Aspergillus fumigatus	330879	Asp f 15	O60022	66853233	11	SLFVSSALAAPTPEN	15	3324.0198
Aspergillus fumigatus	330879	Asp f 15	O60022	66853233	91	GKCYKLQYEQNTIYV	15	3324.0202
Aspergillus fumigatus	330879	Asp f 15	O60022	66853233	96	LQYEQNTIYVTAIDA	15	3324.0201
Aspergillus fumigatus	330879	Asp f 15	O60022	66853233	101	NTIYVTAIDAAPGGF	15	3324.0200
Aspergillus fumigatus	330879	Asp f 15	O60022	66853233	111	APGGFNIAATSAMDQL	15	3324.0199
Aspergillus fumigatus	746128	Asp f 16	O74682(IUIS)	3643812	1	MYFKYTAALAAVLPL	15	3324.0204
Aspergillus fumigatus	746128	Asp f 16	O74682(IUIS)	3643812	6	TAAALAAVLPLCSAQ	15	3324.0205
Aspergillus fumigatus	746128	Asp f 16	O74682(IUIS)	3643812	81	PTIDTDFYFFFGKAE	15	3324.0206
Aspergillus fumigatus	746128	Asp f 16	O74682(IUIS)	3643812	86	DFYFFFGKAEVVMKA	15	3324.0203
Aspergillus fumigatus	746128	Asp f 16	O74682(IUIS)	3643812	196	PQTPMRLRLAAGPAA	15	3324.0207
Aspergillus fumigatus	746128	Asp f 17	O60025	2980819	11	VGVISDISAQTSALA	15	3324.0208
Aspergillus fumigatus	746128	Asp f 17	O60025	2980819	91	SKKDKFVAANAGGTV	15	3324.0212
Aspergillus fumigatus	746128	Asp f 17	O60025	2980819	101	AGGTVYEDLKAQYTA	15	3324.0213
Aspergillus fumigatus	746128	Asp f 17	O60025	2980819	111	AQYTAADSLAKAISA	15	3324.0214

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Aspergillus fumigatus	746128	Asp f 17	O60025	2980819	116	ADSLAKAISAKVPES	15	3324.0209
Aspergillus fumigatus	746128	Asp f 17	O60025	2980819	131	LSDIAAQLSAGITAA	15	3324.0211
Aspergillus fumigatus	746128	Asp f 17	O60025	2980819	136	AQLSAGITAAIQKGI	15	3324.0210
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	1	MKGYLSLSILPLLVA	15	3324.0217
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	6	SLSILPLLVAASPVV	15	3324.0218
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	11	PLLVAASPVVDSIH	15	3324.0221
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	26	NGAAPILSSMNAKEV	15	3324.0231
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	46	VVFKKHVNAESAAA	15	3324.0224
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	61	HSWVQDIHSAQNERV	15	3324.0220
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	91	LGLKNTFDIAGSLVG	15	3324.0227
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	96	TFDIAGSLVGYSGHF	15	3324.0233
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	236	YAVKVLRSVSGSGTMS	15	3324.0225
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	276	KGFKGSVANMSLGGG	15	3324.0229
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	291	KSRTLEAAVNAGVEA	15	3324.0230
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	301	AGVEAGLHFVAAGN	15	3324.0222
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	381	MASPHIAGLLAYFVS	15	3324.0219
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	386	IAGLLAYFVSLQPSK	15	3324.0215
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	411	PKKLLKDIHAIATQG	15	3324.0232
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	416	KDIIAIATQGALTDI	15	3324.0216
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	451	IIASGGYKVNASVKD	15	3324.0226
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	476	KLLTEELGAIYSEIH	15	3324.0223
Aspergillus fumigatus	330879	Asp f 18	P87184	66851354	481	ELGAIYSEIHDAAVA	15	3324.0228
Aspergillus fumigatus	330879	Asp f 2	P79017	66849502	1	MAALLRLAVLLPLAA	15	3324.0236
Aspergillus fumigatus	330879	Asp f 2	P79017	66849502	6	RLAVLLPLAAPLVAT	15	3324.0235
Aspergillus fumigatus	330879	Asp f 2	P79017	66849502	16	PLVATLPTSPVPIAA	15	3324.0242
Aspergillus fumigatus	330879	Asp f 2	P79017	66849502	36	EPVFFSWDAGAVTSF	15	3324.0238
Aspergillus fumigatus	330879	Asp f 2	P79017	66849502	41	SWDAGAVTSFPIHSS	15	3324.0239
Aspergillus fumigatus	330879	Asp f 2	P79017	66849502	156	TTRRWLVSMCSQGYT	15	3324.0243
Aspergillus fumigatus	330879	Asp f 2	P79017	66849502	206	YDEVIALAKSNGTES	15	3324.0241
Aspergillus fumigatus	330879	Asp f 2	P79017	66849502	221	THDSEALQYFALEAY	15	3324.0240
Aspergillus fumigatus	330879	Asp f 2	P79017	66849502	226	ALQYFALEAYAFDIA	15	3324.0234
Aspergillus fumigatus	330879	Asp f 2	P79017	66849502	231	ALEAYAFDIAAPGVG	15	3324.0237
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	1	MPISKIHARSVYDSR	15	3324.0256
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	106	LGANAILGVSLAVAK	15	3324.0245
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	111	ILGVSLAVAKAGAAE	15	3324.0248
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	161	GGRLAFQEFMIVPDS	15	3324.0252
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	166	FQEFMIVPDSAPSFS	15	3324.0251
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	186	GAEVYQKLKALAKKK	15	3324.0254
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	241	IKIAMDVASSEFYKA	15	3324.0255
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	271	PSKWLTYEQLADLYK	15	3324.0247
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	281	ADLYKSLAAKYPIVS	15	3324.0244
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	306	EAWSYFYKTSDFQIV	15	3324.0250
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	336	IELKSNALLLKVNQ	15	3324.0246
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	341	CNALLLKVNQIGTLT	15	3324.0249
Aspergillus fumigatus	330879	Asp f 22	Q96X30	13925873	406	ERLAKLNQILRIEEE	15	3324.0253
Aspergillus fumigatus	330879	Asp f 23	Q8NKF4	66853155	71	EIVEAVTIETPPLV	15	3324.0259
Aspergillus fumigatus	330879	Asp f 23	Q8NKF4	66853155	96	PRGLRSLTTVWAEHL	15	3324.0257
Aspergillus fumigatus	330879	Asp f 23	Q8NKF4	66853155	151	RIKKYCTVVRVLAHT	15	3324.0260
Aspergillus fumigatus	330879	Asp f 23	Q8NKF4	66853155	156	CTVVRVLAHTQIRKT	15	3324.0258
Aspergillus fumigatus	330879	Asp f 27	Q4WVX5	71000343	1	MVVKTFFDITIDGQP	15	3324.0265
Aspergillus fumigatus	330879	Asp f 27	Q4WVX5	71000343	21	FKLFDEVVPKTVENF	15	3324.0266
Aspergillus fumigatus	330879	Asp f 27	Q4WVX5	71000343	46	GYKGSFFHRIPQFM	15	3324.0261
Aspergillus fumigatus	330879	Asp f 27	Q4WVX5	71000343	51	SFHRIPQFMLQGGD	15	3324.0263
Aspergillus fumigatus	330879	Asp f 27	Q4WVX5	71000343	91	HDKPGLLSMANAGKN	15	3324.0267
Aspergillus fumigatus	330879	Asp f 27	Q4WVX5	71000343	106	TNGSQFFITTVVTSW	15	3324.0262
Aspergillus fumigatus	330879	Asp f 27	Q4WVX5	71000343	111	FFITTVVTSWLDGAH	15	3324.0264
Aspergillus fumigatus	746128	Asp f 28	Q1RQJ1	91680607	11	NPIYKALTSSGPVV	15	3324.0270
Aspergillus fumigatus	746128	Asp f 28	Q1RQJ1	91680607	46	LSEKYSNVRFIQVDV	15	3324.0271
Aspergillus fumigatus	746128	Asp f 28	Q1RQJ1	91680607	66	VAHEMNIRAMPTFVL	15	3324.0268
Aspergillus fumigatus	746128	Asp f 28	Q1RQJ1	91680607	71	NIRAMPTFVLYKDGQ	15	3324.0269
Aspergillus fumigatus	330879	Asp f 29	Q4WV97	70997545	41	SPVFQRLSTSEEFKN	15	3324.0273
Aspergillus fumigatus	330879	Asp f 29	Q4WV97	70997545	56	AKFYEIDVDELSEVA	15	3324.0272
Aspergillus fumigatus	330879	Asp f 29	Q4WV97	70997545	96	ANPPALEAAIKAHVA	15	3337.0015
Aspergillus fumigatus	330879	Asp f 3	O43099	2769700	46	KKVILFALPGAFTPV	15	3324.0274
Aspergillus fumigatus	330879	Asp f 3	O43099	2769700	81	VDVVAVLAYNDAYVM	15	3324.0275
Aspergillus fumigatus	330879	Asp f 3	O43099	2769700	86	VLAYNDAYVMSAWGK	15	3324.0277
Aspergillus fumigatus	330879	Asp f 3	O43099	2769700	106	GDDILFLSDPDARFS	15	3324.0279
Aspergillus fumigatus	330879	Asp f 3	O43099	2769700	141	HGKITYAALEPAKNH	15	3324.0278
Aspergillus fumigatus	330879	Asp f 3	O43099	2769700	154	NHLEFSSAETVLKHL	15	3324.0276

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Aspergillus fumigatus	746128	Asp f 34	A4FSH5	133920236	1	MQIKSFVLAASAAAT	15	3324.0280
Aspergillus fumigatus	746128	Asp f 34	A4FSH5	133920236	6	FVLAASAAATASAAA	15	3324.0281
Aspergillus fumigatus	746128	Asp f 34	A4FSH5	133920236	26	NKYFGVIAHSGSAV	15	3324.0283
Aspergillus fumigatus	746128	Asp f 34	A4FSH5	133920236	31	IVAIHSGSAVYQPPF	15	3324.0282
Aspergillus fumigatus	746128	Asp f 34	A4FSH5	133920236	36	SGSAVYQPPFSAAKS	15	3324.0287
Aspergillus fumigatus	746128	Asp f 34	A4FSH5	133920236	41	YQPPFSAAKSSIFAG	15	3324.0286
Aspergillus fumigatus	746128	Asp f 34	A4FSH5	133920236	71	ATFYIQDGSLLYLAA	15	3324.0285
Aspergillus fumigatus	746128	Asp f 34	A4FSH5	133920236	76	QDGSLLYLAAASATPQ	15	3324.0284
Aspergillus fumigatus	330879	Asp f 4	O60024	70989331	1	MLKNSMMLLTALAA	15	3324.0289
Aspergillus fumigatus	330879	Asp f 4	O60024	70989331	6	SMLLLTALAAGSSVA	15	3324.0290
Aspergillus fumigatus	330879	Asp f 4	O60024	70989331	41	DTVYATINGVLVSWI	15	3324.0288
Aspergillus fumigatus	330879	Asp f 4	O60024	70989331	186	TGWYGNLSALTLHLEA	15	3324.0291
Aspergillus fumigatus	330879	Asp f 4	O60024	70989331	276	GELCSHSHGLSKVI	15	3324.0293
Aspergillus fumigatus	330879	Asp f 4	O60024	70989331	286	LSKVIDAYTADLAGV	15	3324.0292
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	1	MRGLLLAGALALPAS	15	3324.0297
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	6	LAGALALPASVFAHP	15	3324.0311
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	31	TVDLNAFRLKSLAKY	15	3324.0299
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	36	AFRLKSLAKYVNATE	15	3324.0300
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	41	SLAKYVNATETVIEA	15	3324.0313
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	61	PFKPKQSYVEVATQHV	15	3324.0317
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	121	KGDGKVFSYSGNSFYT	15	3324.0306
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	181	ESYVFKGVSGTVSDP	15	3324.0314
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	196	KAKLVYFVKDDGTLA	15	3324.0308
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	221	SNWLLTYIDAKSGEE	15	3324.0298
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	306	SYLNNYRPSSSLSF	15	3324.0318
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	316	SSLSFKYPYSSVSSP	15	3324.0309
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	331	PSYIDASIIQLFYT	15	3324.0294
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	336	DASHIQLFYTANIYH	15	3324.0296
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	341	QLFYTANIYHDLLEYT	15	3324.0304
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	346	ANIYHDLLEYTLGFTE	15	3324.0310
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	376	GNDYVILNLAQDGSST	15	3324.0315
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	426	IVIHEYTHGLSNRLT	15	3324.0307
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	461	WSDFMATAIRLKPGR	15	3324.0319
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	491	AGGIRQYPYSTLSLT	15	3324.0302
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	506	NPLTYTSVNSLNAVH	15	3324.0316
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	516	LNAVHAIGTVWASML	15	3324.0312
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	521	AIGTVWASMLYEVWL	15	3324.0305
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	526	WASMLYEVWLWNLIDK	15	3324.0295
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	556	PTDGKYLAMKLVMDG	15	3324.0303
Aspergillus fumigatus	330879	Asp f 5	P46075	3776613	576	CNPNFVQARDAILDA	15	3324.0301
Aspergillus fumigatus	330879	Asp f 6	Q92450	18158811	11	PYPYDALQPYISQQI	15	3324.0322
Aspergillus fumigatus	330879	Asp f 6	Q92450	18158811	16	ALQPYISQQIMELHH	15	3324.0321
Aspergillus fumigatus	330879	Asp f 6	Q92450	18158811	31	KKHHQTYVNLNAAL	15	3324.0326
Aspergillus fumigatus	330879	Asp f 6	Q92450	18158811	36	TYVNLNAALEAQKK	15	3324.0323
Aspergillus fumigatus	330879	Asp f 6	Q92450	18158811	56	DVPKLVSVQQAIFKN	15	3324.0325
Aspergillus fumigatus	330879	Asp f 6	Q92450	18158811	61	VSVQQAIFKNGGGHI	15	3324.0328
Aspergillus fumigatus	330879	Asp f 6	Q92450	18158811	111	FDKFKDAFNITLLGI	15	3324.0324
Aspergillus fumigatus	330879	Asp f 6	Q92450	18158811	166	EHAYYLQYLNDKASY	15	3324.0320
Aspergillus fumigatus	330879	Asp f 6	Q92450	18158811	171	LQYLNDKASYAKGIW	15	3324.0327
Aspergillus fumigatus	330879	Asp f 7	O42799	2879888	1	MAPIFKSLALVSALF	15	3324.0332
Aspergillus fumigatus	330879	Asp f 7	O42799	2879888	6	KSLALVSALFAAIS	15	3324.0330
Aspergillus fumigatus	330879	Asp f 7	O42799	2879888	11	VSALFAAIISSAAPVN	15	3324.0331
Aspergillus fumigatus	330879	Asp f 7	O42799	2879888	96	TQPSVATFIPVAAAA	15	3324.0334
Aspergillus fumigatus	330879	Asp f 7	O42799	2879888	101	ATFIPVAAAAAADS	15	3324.0333
Aspergillus fumigatus	330879	Asp f 7	O42799	2879888	176	LTYDYDTATSASAPSS	15	3324.0335
Aspergillus fumigatus	330879	Asp f 7	O42799	2879888	196	DGFSENVVLPVGM	15	3324.0329
Aspergillus fumigatus	330879	Asp f 8	Q9UUZ6	9887212	1	MKHLAAYLLALAGN	15	3324.0336
Aspergillus fumigatus	330879	Asp f 8	Q9UUZ6	9887212	6	AYLLALAGNTSPSS	15	3324.0337
Aspergillus fumigatus	330879	Asp f 8	Q9UUZ6	9887212	21	EDVKAVLSSVGIDAD	15	3324.0338
Aspergillus fumigatus	330879	Asp f 8	Q9UUZ6	9887212	36	EERLNKLAIELEKGD	15	3337.0016
Aspergillus fumigatus	330879	Asp f 8	Q9UUZ6	9887212	51	LQELIAEGSTKLASV	15	3324.0339
Aspergillus fumigatus	330879	Asp f 9	O42800(IUIS)	85540942	1	KRSFILRSADMYFKY	15	3324.0342
Aspergillus fumigatus	330879	Asp f 9	O42800(IUIS)	85540942	6	LRSADMYFKYTAAL	15	3324.0343
Aspergillus fumigatus	330879	Asp f 9	O42800(IUIS)	85540942	11	MYFKYTAALAVLPL	15	3324.0341
Aspergillus fumigatus	330879	Asp f 9	O42800(IUIS)	85540942	16	TAAALAVLPLCSAQ	15	3324.0344
Aspergillus fumigatus	330879	Asp f 9	O42800(IUIS)	85540942	51	STYTADFTSASALDQ	15	3324.0346
Aspergillus fumigatus	330879	Asp f 9	O42800(IUIS)	85540942	91	PTIDTDFYFFFGKAE	15	3324.0345
Aspergillus fumigatus	330879	Asp f 9	O42800(IUIS)	85540942	96	DFYFFFGKAEVVMKA	15	3324.0340
Bermuda grass	28909	Cyn d 1	Q947S4	16076697	1	MLAVVAVVLASVMGG	15	3324.0633

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Bermuda grass	28909	Cyn d 1	Q947S4	16076697	111	ITDKNYEHIAAYHFD	15	3324.0637
Bermuda grass	28909	Cyn d 1	Q947S4	16076697	116	YEHIAAYHFDLSGKA	15	3324.0634
Bermuda grass	28909	Cyn d 1	Q947S4	16076697	141	DKLRKAGELMLQFRR	15	3324.0635
Bermuda grass	28909	Cyn d 1	Q947S4	16076697	176	PNYLALLVKYAAAGDG	15	3324.0636
Bermuda grass	28909	Cyn d 12	O04725	2154728	31	TVWAQSAAFPAPKPE	15	3324.0639
Bermuda grass	28909	Cyn d 12	O04725	2154728	66	FLGPTKYMVIQGEPE	15	3324.0640
Bermuda grass	28909	Cyn d 12	O04725	2154728	71	KYMVIQGEPEGAVIRG	15	3324.0638
Bermuda grass	28909	Cyn d 15	Q7XYF2	32344781	1	MATLTFPVLLATMVG	15	3324.0641
Bermuda grass	28909	Cyn d 15	Q7XYF2	32344781	6	FPVLLATMVGHWACV	15	3324.0642
Bermuda grass	28909	Cyn d 15	Q7XYF2	32344781	21	NIIFHVEESSPKFAL	15	3324.0643
Bermuda grass	28909	Cyn d 15	Q7XYF2	32344781	71	KPLKGPLNIRLRAEG	15	3337.0021
Bermuda grass	28909	Cyn d 23	Q7XYF3	32344779	1	MAKVIAIILVATMVT	15	3324.0644
Bermuda grass	28909	Cyn d 23	Q7XYF3	32344779	6	AHLVATMVTAAALVP	15	3324.0645
Bermuda grass	28909	Cyn d 23	Q7XYF3	32344779	11	ATMVTAAALVPIECAT	15	3324.0648
Bermuda grass	28909	Cyn d 23	Q7XYF3	32344779	56	DAAVNLMAMSFCIG	15	3324.0646
Bermuda grass	28909	Cyn d 23	Q7XYF3	32344779	61	LMAMSFICIGWAKKA	15	3324.0647
Bermuda grass	28909	Cyn d 23	Q7XYF3	32344779	91	AADQVLAAPAHKYK	15	3324.0649
Bermuda grass	28909	Cyn d 7	P94092	14423848	26	ELTDALRTLGSATSAD	15	3324.0651
Bermuda grass	28909	Cyn d 7	P94092	14423848	31	LRTLGSATSADDEVQRM	15	3324.0652
Bermuda grass	28909	Cyn d 7	P94092	14423848	56	FIDFDEFISFCNANP	15	3324.0650
Birch	3505	Bet v 1	O23754	2414158	6	YETETTSVIPAARLF	15	3324.0351
Birch	3505	Bet v 1	O23754	2414158	11	TSVIPAARLFKARFL	15	3324.0349
Birch	3505	Bet v 1	O23754	2414158	76	DHTNFKYSYSVIEGG	15	3324.0350
Birch	3505	Bet v 1	O23754	2414158	96	LEKISNEIKIVATPD	15	3324.0353
Birch	3505	Bet v 1	O23754	2414158	111	GGSLKISNKYHTKG	15	3324.0352
Birch	3505	Bet v 1	O23754	2414158	141	GETLLRAVESYLLAH	15	3324.0347
Birch	3505	Bet v 1	O23754	2414158	146	RAVESYLLAHSDAYN	15	3324.0348
Birch	3505	Bet v 2	P25816	157830684	31	DGSVWAQSSSFQPFK	15	3324.0355
Birch	3505	Bet v 2	P25816	157830684	66	GLHLGGIKYMVIOGGE	15	3324.0356
Birch	3505	Bet v 2	P25816	157830684	71	GIKYMVIOGGEAGAVI	15	3324.0354
Birch	3505	Bet v 3	P43187	257675827	26	NSSFRLRSESLNTRL	15	3324.0358
Birch	3505	Bet v 3	P43187	257675827	31	LRSESLNTRLRRRIF	15	3324.0360
Birch	3505	Bet v 3	P43187	257675827	36	LNTLRLRRIFDLDFDK	15	3324.0361
Birch	3505	Bet v 3	P43187	257675827	56	ITVDELSRALNLLGL	15	3324.0359
Birch	3505	Bet v 3	P43187	257675827	61	LSRALNLLGLETDL	15	3324.0364
Birch	3505	Bet v 3	P43187	257675827	91	GLQFEDFISLHQSLN	15	3324.0357
Birch	3505	Bet v 3	P43187	257675827	96	DFISLHQSLNDSYFA	15	3324.0365
Birch	3505	Bet v 3	P43187	257675827	146	GDGYISARELQMVLG	15	3324.0366
Birch	3505	Bet v 3	P43187	257675827	171	DRVEKMIVSVDSNRD	15	3324.0362
Birch	3505	Bet v 3	P43187	257675827	191	FEFKDMMRSVLRSS	15	3324.0363
Birch	3505	Bet v 4	Q39419	2051993	31	ELGEALKTLGSITPD	15	3324.0367
Birch	3505	Bet v 4	Q39419	2051993	61	FISFQEFTDFGRANR	15	3324.0368
Birch	3505	Bet v 4	Q39419	2051993	71	GRANRGLLKDVAKIF	15	3337.0017
Birch	3505	Bet v 6	Q9FUW6	10764491	16	IGKFIVEASAKSGHP	15	3324.0375
Birch	3505	Bet v 6	Q9FUW6	10764491	46	GKLVEKFKGLGVTL	15	3324.0374
Birch	3505	Bet v 6	Q9FUW6	10764491	51	KFKGLGVTLHGDLY	15	3324.0376
Birch	3505	Bet v 6	Q9FUW6	10764491	71	VKAFKQVDVVISTVG	15	3324.0384
Birch	3505	Bet v 6	Q9FUW6	10764491	76	QVDVVISTVGHQLA	15	3324.0389
Birch	3505	Bet v 6	Q9FUW6	10764491	86	HLQLADQVKIAAIK	15	3324.0381
Birch	3505	Bet v 6	Q9FUW6	10764491	91	DQVKIAAIKEAGNI	15	3324.0377
Birch	3505	Bet v 6	Q9FUW6	10764491	101	EAGNIKRFFPSEFGN	15	3324.0385
Birch	3505	Bet v 6	Q9FUW6	10764491	141	EAEGIPYTYVSSNFF	15	3324.0370
Birch	3505	Bet v 6	Q9FUW6	10764491	146	PYTYVSSNFFAGYFL	15	3324.0383
Birch	3505	Bet v 6	Q9FUW6	10764491	151	SSNFFAGYFLPTLAQ	15	3324.0373
Birch	3505	Bet v 6	Q9FUW6	10764491	156	AGYFLPTLAQPGLTS	15	3324.0388
Birch	3505	Bet v 6	Q9FUW6	10764491	206	RTLNKIVYIKPAKNI	15	3324.0387
Birch	3505	Bet v 6	Q9FUW6	10764491	211	IVYIKPAKNIYSFNE	15	3324.0386
Birch	3505	Bet v 6	Q9FUW6	10764491	216	PAKNIYSFNEIVALW	15	3324.0372
Birch	3505	Bet v 6	Q9FUW6	10764491	221	YSFNEIVALWEKKIG	15	3324.0371
Birch	3505	Bet v 6	Q9FUW6	10764491	256	PIPINVILAINHSVF	15	3324.0369
Birch	3505	Bet v 6	Q9FUW6	10764491	261	VILAINHSVFVKGDH	15	3324.0380
Birch	3505	Bet v 6	Q9FUW6	10764491	276	TNFEIASFGVEASE	15	3324.0379
Birch	3505	Bet v 6	Q9FUW6	10764491	291	LYPDVKYTTVEEYLQ	15	3324.0382
Birch	3505	Bet v 6	Q9FUW6	10764491	294	DVKYTTVEEYLQQVF	15	3324.0378
Birch	3505	Bet v 7	P81531(IUIS)	21431524	51	GKPLHYKSSFHRVI	15	3324.0390
Birch	3505	Bet v 7	P81531(IUIS)	21431524	101	TGPGILSMANAGPGT	15	3337.0018
Birch	3505	Bet v 7	P81531(IUIS)	21431524	116	NGSQFFICTAKTEWL	15	3324.0391
Black walnut	16719	Jug n 1	Q7Y1C2	31321942	6	KCIFHTFSLTMARLA	15	3324.1111
Black walnut	16719	Jug n 1	Q7Y1C2	31321942	11	TFSLTMARLATLAL	15	3324.1110

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Black walnut	16719	Jug n 1	Q7Y1C2	31321942	16	MARLATLAALLVALL	15	3324.1108
Black walnut	16719	Jug n 1	Q7Y1C2	31321942	21	TLAALLVALLFVANA	15	3324.1109
Black walnut	16719	Jug n 1	Q7Y1C2	31321942	26	LVALLFVANAFAFRT	15	3324.1107
Black walnut	16719	Jug n 1	Q7Y1C2	31321942	31	FVANAFAFRTTITTM	15	3324.1112
Black walnut	16719	Jug n 1	Q7Y1C2	31321942	36	AAFRTTITTTMEIDED	15	3324.1114
Black walnut	16719	Jug n 1	Q7Y1C2	31321942	71	LNHCQYYLRQQRSG	15	3324.1113
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	66	RHNPPYFHSQSIRSR	15	3324.1119
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	86	GEVKYLERFAERTEL	15	3324.1122
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	96	ERTELLRGIENYRVV	15	3324.1121
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	101	LRGIENYRVVILDAN	15	3324.1118
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	106	NYRVVILDANPNTFM	15	3324.1125
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	191	GQVREYYAAGAKSPD	15	3324.1126
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	206	QSYLRVFSNDILVAA	15	3324.1115
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	211	VFSNDILVAALNTPR	15	3324.1116
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	301	LQEMDVLVNYAEIKR	15	3324.1123
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	366	TGRFQKVTARLARGD	15	3324.1124
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	381	IFVIPAGHPHAIITAS	15	3324.1128
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	411	NNQRNFLAGQNSIIN	15	3324.1117
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	416	FLAGQNSIINQLERE	15	3324.1120
Black walnut	16719	Jug n 2	Q7Y1C1	31321944	446	IFESQMESYFVPTER	15	3324.1127
Canary grass	28479	Pha a 1	Q41260	2498576	1	MMKMVCSSSSSLLLV	15	3324.1430
Canary grass	28479	Pha a 1	Q41260	2498576	11	SLLLVAAALLAVFVG	15	3324.1426
Canary grass	28479	Pha a 1	Q41260	2498576	16	VAALLAVFVGSQAQGI	15	3324.1427
Canary grass	28479	Pha a 1	Q41260	2498576	126	EEPIAPYHFDLSGHA	15	3324.1429
Canary grass	28479	Pha a 1	Q41260	2498576	186	PNYLALLVKYVDGDG	15	3324.1428
Canary grass	28479	Pha a 1	Q41260	2498576	221	SWGAIWRIDTPDKLT	15	3337.0039
Canary grass	28479	Pha a 5	P56164	1246117	1	MAVQKYMALFLAVA	15	3324.1434
Canary grass	28479	Pha a 5	P56164	1246117	6	YTMALFLAVALVAGP	15	3324.1431
Canary grass	28479	Pha a 5	P56164	1246117	11	FLAVALVAGPAAPTP	15	3324.1438
Canary grass	28479	Pha a 5	P56164	1246117	101	DAAYRVAYEAAEGST	15	3324.1443
Canary grass	28479	Pha a 5	P56164	1246117	116	PEAKYDAFIAALTEA	15	3324.1435
Canary grass	28479	Pha a 5	P56164	1246117	121	DAFIAALTEALRVIA	15	3324.1432
Canary grass	28479	Pha a 5	P56164	1246117	126	ALTEALRVIAGAFEV	15	3324.1437
Canary grass	28479	Pha a 5	P56164	1246117	161	VDKIDAAFKIAATAA	15	3324.1440
Canary grass	28479	Pha a 5	P56164	1246117	166	AAFKIAATAANSAPA	15	3324.1441
Canary grass	28479	Pha a 5	P56164	1246117	181	NDKFTVFEAGAFNKAI	15	3324.1442
Canary grass	28479	Pha a 5	P56164	1246117	201	GAYETYKFIPSLAEEA	15	3324.1433
Canary grass	28479	Pha a 5	P56164	1246117	206	YKFIPSLAEEAVKQAY	15	3324.1436
Canary grass	28479	Pha a 5	P56164	1246117	216	VKQAYGATVARAPEV	15	3324.1444
Canary grass	28479	Pha a 5	P56164	1246117	226	RAPEVKYAVFEAGLT	15	3324.1439
Cat epithelia	9685	Fel d 1 1	P30438	146387241	1	MKGACVLLVLLWAALL	15	3324.1047
Cat epithelia	9685	Fel d 1 1	P30438	146387241	6	VLVLLWAALLLISGG	15	3324.1046
Cat epithelia	9685	Fel d 1 1	P30438	146387241	41	DEYVEQVAQYKALPV	15	3324.1049
Cat epithelia	9685	Fel d 1 1	P30438	146387241	46	QVAQYKALPVVLENA	15	3324.1051
Cat epithelia	9685	Fel d 1 1	P30438	146387241	51	KALPVVLENARILKN	15	3324.1048
Cat epithelia	9685	Fel d 1 1	P30438	146387241	78	NALSVDLKIYTSPLC	15	3324.1050
Cat epithelia	9685	Fel d 1 2	P30440	146387241	1	MRGALLVLLALLVTQA	15	3324.1054
Cat epithelia	9685	Fel d 1 2	P30440	146387241	6	LVLALLVTQALGVKMM	15	3324.1053
Cat epithelia	9685	Fel d 1 2	P30440	146387241	21	AETCPIFYDVFFAVA	15	3324.1056
Cat epithelia	9685	Fel d 1 2	P30440	146387241	26	IFYDVFFAVANGNEL	15	3324.1052
Cat epithelia	9685	Fel d 1 2	P30440	146387241	36	NGNELLLDLSLTKVN	15	3324.1055
Cat epithelia	9685	Fel d 1 2	P30440	146387241	66	YVENGLISRVL DGLV	15	3324.1057
Cat epithelia	9685	Fel d 2	P49064	30962111	1	MKWVTFISLLLLFSS	15	3324.1058
Cat epithelia	9685	Fel d 2	P49064	30962111	6	FISLLLLFSSAYSRG	15	3324.1063
Cat epithelia	9685	Fel d 2	P49064	30962111	41	EHFRGLVLVAFSQYL	15	3324.1060
Cat epithelia	9685	Fel d 2	P49064	30962111	46	LVLVAFSQYLQCPFP	15	3324.1061
Cat epithelia	9685	Fel d 2	P49064	30962111	61	EDHVKLVNEVTEFAK	15	3324.1075
Cat epithelia	9685	Fel d 2	P49064	30962111	156	QRFLGKLYEIAARRH	15	3324.1069
Cat epithelia	9685	Fel d 2	P49064	30962111	161	KYLYEIAARRHPYFYA	15	3324.1068
Cat epithelia	9685	Fel d 2	P49064	30962111	166	IARRHPYFYAPELly	15	3324.1070
Cat epithelia	9685	Fel d 2	P49064	30962111	171	PYFYAPELlyYAAEY	15	3324.1078
Cat epithelia	9685	Fel d 2	P49064	30962111	231	GERAFKAWSVARLSQ	15	3324.1059
Cat epithelia	9685	Fel d 2	P49064	30962111	246	KFPKAEFAEISKLV	15	3324.1077
Cat epithelia	9685	Fel d 2	P49064	30962111	346	AKDVFLGTFlyEYSR	15	3324.1074
Cat epithelia	9685	Fel d 2	P49064	30962111	351	LGTFLYEYSRRHPEY	15	3324.1076
Cat epithelia	9685	Fel d 2	P49064	30962111	361	RHPEYSVSLLLRLAK	15	3324.1062
Cat epithelia	9685	Fel d 2	P49064	30962111	366	SVSLLRLAKEYEAT	15	3324.1071
Cat epithelia	9685	Fel d 2	P49064	30962111	396	HVFDEFKPLVEEPHN	15	3324.1072
Cat epithelia	9685	Fel d 2	P49064	30962111	421	KLGEYGFQNALLVRY	15	3324.1065

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Cat epithelia	9685	Fel d 2	P49064	30962111	426	GFQNALLVRYTKKVP	15	3324.1080
Cat epithelia	9685	Fel d 2	P49064	30962111	471	SCAEDYLSVVLNRLC	15	3324.1064
Cat epithelia	9685	Fel d 2	P49064	30962111	476	YLSVVLNRLCVLHEK	15	3324.1066
Cat epithelia	9685	Fel d 2	P49064	30962111	506	VNRRPCFSALQVDET	15	3324.1081
Cat epithelia	9685	Fel d 2	P49064	30962111	531	FTFHADLCTLPEAEK	15	3324.1079
Cat epithelia	9685	Fel d 2	P49064	30962111	546	QIKKQSSALVELLKHK	15	3324.1073
Cat epithelia	9685	Fel d 2	P49064	30962111	594	EEGPKLVAAAQAALA	15	3324.1067
Cat epithelia	9685	Fel d 3	Q8WNR9	17939981	31	TNETYQKFEAIEYKT	15	3324.1087
Cat epithelia	9685	Fel d 3	Q8WNR9	17939981	41	IEYKTQVVAGINYYI	15	3324.1083
Cat epithelia	9685	Fel d 3	Q8WNR9	17939981	46	QVVAGINYYIKVQVD	15	3324.1086
Cat epithelia	9685	Fel d 3	Q8WNR9	17939981	51	INYYIKVQVDDNRYI	15	3324.1084
Cat epithelia	9685	Fel d 3	Q8WNR9	17939981	61	DNRYIHIVFKGLPV	15	3324.1082
Cat epithelia	9685	Fel d 3	Q8WNR9	17939981	66	HIVFKGLPVQDSSL	15	3324.1085
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	1	MKLLLLLCLGLLVC	15	3324.1096
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	31	ISGEWYSILLASDVK	15	3324.1088
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	36	YSILLASDVKEKIEE	15	3324.1094
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	51	NGSMRVFVEHIKALD	15	3324.1098
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	56	VFVEHIKALDNSSLS	15	3324.1090
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	61	IKALDNSSLSFVFHT	15	3324.1091
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	96	YTVVYDGYNVFSIVE	15	3324.1100
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	101	DGYNVFSIVETVYDE	15	3324.1097
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	106	FSIVETVYDEYILLH	15	3324.1095
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	111	TVYDEYILLHLLNFD	15	3324.1089
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	116	YILLHLLNFDKTRPF	15	3324.1093
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	121	LLNFDKTRPFQLVFE	15	3324.1092
Cat epithelia	9685	Fel d 4	Q5VFH6	45775300	126	KTRPFQLVFEFYAREP	15	3324.1099
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	16	QPTGLFINNEFVKGQ	15	3324.0559
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	56	DVDIAVAARKAFEG	15	3324.0561
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	81	GKLLNNLANLFEKNI	15	3324.0552
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	86	NLANLFEKNIIDLLAA	15	3324.0565
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	91	FEKNIIDLLAAVESLD	15	3324.0555
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	166	PLLMWAWKIGPAIAC	15	3324.0558
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	191	QTPGLGLVAASLVKE	15	3324.0557
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	246	RTILKAAASSNLKVK	15	3324.0566
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	281	AISWVNFVGIFFNHGQ	15	3324.0553
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	341	SKVQFDRIMEYIQAG	15	3324.0560
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	371	DKGYFIEPTIFSNTV	15	3324.0554
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	386	EDMKIVKEEIFGPVC	15	3324.0556
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	416	NASTYGLAAAVHTKN	15	3324.0564
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	431	LNTAIEVSNALKAGT	15	3324.0563
Cladosporium herbarum	29918	Cla h 10	P40108	291047712	441	LKAGTVWVNTYNTLH	15	3324.0562
Cladosporium herbarum	29918	Cla h 12	P50344	1710589	1	MSAAELASSYAALIL	15	3324.0569
Cladosporium herbarum	29918	Cla h 12	P50344	1710589	6	LASSYAALILADEGL	15	3324.0567
Cladosporium herbarum	29918	Cla h 12	P50344	1710589	21	EITADKLQALISAAK	15	3324.0568
Cladosporium herbarum	29918	Cla h 12	P50344	1710589	26	KLQALISAAKVPFIE	15	3324.0570
Cladosporium herbarum	29918	Cla h 12	P50344	1710589	36	VPEIEPIWTSLFAKA	15	3324.0571
Cladosporium herbarum	29918	Cla h 12	P50344	1710589	41	PIWTSLFAKALEGKD	15	3324.0572
Cladosporium herbarum	29918	Cla h 5	P42039	5777795	1	MKYLA AFLLLGLAGN	15	3324.0573
Cladosporium herbarum	29918	Cla h 5	P42039	5777795	6	AFLLLGLAGNSSPSA	15	3324.0576
Cladosporium herbarum	29918	Cla h 5	P42039	5777795	21	EDIKTVLSSVIGDAD	15	3324.0574
Cladosporium herbarum	29918	Cla h 5	P42039	5777795	46	LEGKINELISSGSE	15	3324.0577
Cladosporium herbarum	29918	Cla h 5	P42039	5777795	51	INELISSGSEKLASV	15	3324.0575
Cladosporium herbarum	29918	Cla h 6	P42040	467660	1	MPISKIHSRYVYDSR	15	3324.0587
Cladosporium herbarum	29918	Cla h 6	P42040	467660	66	VANVNEIAPALIKE	15	3324.0584
Cladosporium herbarum	29918	Cla h 6	P42040	467660	106	IGANAILGVSMVAVAK	15	3324.0579
Cladosporium herbarum	29918	Cla h 6	P42040	467660	111	ILGVSMVAKAAAAAE	15	3324.0586
Cladosporium herbarum	29918	Cla h 6	P42040	467660	126	KRVPLYAHISDLSGT	15	3324.0590
Cladosporium herbarum	29918	Cla h 6	P42040	467660	161	GGRLAFQEFMIVPSG	15	3324.0588
Cladosporium herbarum	29918	Cla h 6	P42040	467660	166	FQEFMIVPSGAPSFT	15	3324.0581
Cladosporium herbarum	29918	Cla h 6	P42040	467660	186	GAEVYQKLSLTKKR	15	3324.0585
Cladosporium herbarum	29918	Cla h 6	P42040	467660	241	IKIAMDVASSEFYKA	15	3324.0589
Cladosporium herbarum	29918	Cla h 6	P42040	467660	271	KSKWITYEQLADQYK	15	3324.0594
Cladosporium herbarum	29918	Cla h 6	P42040	467660	281	ADQYQLAAKYPIVS	15	3324.0593
Cladosporium herbarum	29918	Cla h 6	P42040	467660	306	EAWSYFYKTSVSGDFQ	15	3324.0580
Cladosporium herbarum	29918	Cla h 6	P42040	467660	341	KACNALLKVNQIGT	15	3324.0578
Cladosporium herbarum	29918	Cla h 6	P42040	467660	346	LLLKVNQIGTITEAI	15	3324.0591
Cladosporium herbarum	29918	Cla h 6	P42040	467660	366	SFAAGWGVMSHRSG	15	3324.0583
Cladosporium herbarum	29918	Cla h 6	P42040	467660	386	TIADIVVGLRAGQIK	15	3324.0592
Cladosporium herbarum	29918	Cla h 6	P42040	467660	411	AKLNQILRIEELGD	15	3324.0582

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Cladosporium herbarum	29918	Cl a h 7	P42059	1168970	1	MAPKIIIFYSTWGH	15	3324.0597
Cladosporium herbarum	29918	Cl a h 7	P42059	1168970	131	AMSTLSHHGIIVPL	15	3337.0019
Cladosporium herbarum	29918	Cl a h 7	P42059	1168970	141	IYVPLGYKTTFFHLLG	15	3324.0595
Cladosporium herbarum	29918	Cl a h 7	P42059	1168970	190	QGKAFYEAVAKVNFQ	15	3324.0596
Cladosporium herbarum	29918	Cl a h 8	PoCoY5	296863443	46	GAAVAITYASRAQGA	15	3324.0600
Cladosporium herbarum	29918	Cl a h 8	PoCoY5	296863443	101	QIDAFIANAGATADS	15	3324.0601
Cladosporium herbarum	29918	Cl a h 8	PoCoY5	296863443	151	GTGSLVITASMSGHI	15	3324.0603
Cladosporium herbarum	29918	Cl a h 8	PoCoY5	296863443	181	GCIHMARSLANEWRD	15	3324.0602
Cladosporium herbarum	29918	Cl a h 8	PoCoY5	296863443	236	KELKGAYVVFASDAS	15	3324.0598
Cladosporium herbarum	29918	Cl a h 8	PoCoY5	296863443	241	AYVVFASDASTYTTG	15	3324.0599
Cypress	13415	Cha o 1	Q96385	219928905	1	MASCTLLAVLVFLCA	15	3324.0519
Cypress	13415	Cha o 1	Q96385	219928905	6	LLAVLVFLCAIVSFC	15	3324.0518
Cypress	13415	Cha o 1	Q96385	219928905	86	ERSLWIIFSKNLNIK	15	3324.0517
Cypress	13415	Cha o 1	Q96385	219928905	91	IIFSKNLNIKLNMP	15	3324.0522
Cypress	13415	Cha o 1	Q96385	219928905	96	NLNIKLNMPPLYAGN	15	3324.0523
Cypress	13415	Cha o 1	Q96385	219928905	126	GPCLFMRTVSHVILH	15	3324.0520
Cypress	13415	Cha o 1	Q96385	219928905	131	MRTVSHVILHGLNIH	15	3324.0528
Cypress	13415	Cha o 1	Q96385	219928905	151	VSGNVLISEASGVVP	15	3324.0526
Cypress	13415	Cha o 1	Q96385	219928905	196	LVDVTLASTGVTISN	15	3324.0524
Cypress	13415	Cha o 1	Q96385	219928905	211	NHFFNHHKVMLLGHS	15	3324.0521
Cypress	13415	Cha o 1	Q96385	219928905	231	DKSMKVTVAFNQFGP	15	3324.0525
Cypress	13415	Cha o 1	Q96385	219928905	256	YGLIHAVANNNDPWS	15	3324.0527
Cypress	13415	Cha o 2	Q7M1E7	47606004	1	MGMKFMMAAVFLALQ	15	3324.0531
Cypress	13415	Cha o 2	Q7M1E7	47606004	6	MAAVAFALQLVIMA	15	3324.0529
Cypress	13415	Cha o 2	Q7M1E7	47606004	11	FLALQLIVMAAEDQ	15	3324.0532
Cypress	13415	Cha o 2	Q7M1E7	47606004	31	LDSDIEQYLRNSRSL	15	3324.0544
Cypress	13415	Cha o 2	Q7M1E7	47606004	36	EQYLRNSRSLKLVH	15	3324.0538
Cypress	13415	Cha o 2	Q7M1E7	47606004	76	EAFATTWNAACKKAS	15	3324.0551
Cypress	13415	Cha o 2	Q7M1E7	47606004	81	TWNAACKKASAVLLV	15	3324.0547
Cypress	13415	Cha o 2	Q7M1E7	47606004	86	CKKASAVLLVPANKK	15	3324.0534
Cypress	13415	Cha o 2	Q7M1E7	47606004	96	PANKKFFVNNLVFRG	15	3324.0533
Cypress	13415	Cha o 2	Q7M1E7	47606004	131	ARWKNSKIWLQFAQL	15	3324.0542
Cypress	13415	Cha o 2	Q7M1E7	47606004	136	SKIWLQFAQLTDFNL	15	3324.0530
Cypress	13415	Cha o 2	Q7M1E7	47606004	181	NRPTAIKIDYSKSVT	15	3324.0545
Cypress	13415	Cha o 2	Q7M1E7	47606004	186	IKIDYSKSVTVKELT	15	3324.0535
Cypress	13415	Cha o 2	Q7M1E7	47606004	196	VKELTLMNSPEFHLV	15	3324.0550
Cypress	13415	Cha o 2	Q7M1E7	47606004	236	IDIFASKRFHIEKCV	15	3324.0539
Cypress	13415	Cha o 2	Q7M1E7	47606004	296	HVHVNRKAFIDTQNG	15	3324.0543
Cypress	13415	Cha o 2	Q7M1E7	47606004	321	GLASYTTYENVEMIN	15	3324.0537
Cypress	13415	Cha o 2	Q7M1E7	47606004	331	VEMINSENILINQF	15	3324.0549
Cypress	13415	Cha o 2	Q7M1E7	47606004	336	SENILINQFYCTSA	15	3324.0540
Cypress	13415	Cha o 2	Q7M1E7	47606004	366	TYKNIHGTSATAAAI	15	3324.0548
Cypress	13415	Cha o 2	Q7M1E7	47606004	376	TAAAIQLMCSDSVPC	15	3324.0536
Cypress	13415	Cha o 2	Q7M1E7	47606004	391	TGIQLSNVSLKLTSG	15	3324.0541
Cypress	13415	Cha o 2	Q7M1E7	47606004	481	QPCKPKLIIVHPNKP	15	3324.0546
Cypress	49011	Cup a 1	Q9SCG9	9087167	66	KALWIIFSQNMNIK	15	3324.0604
Cypress	49011	Cup a 1	Q9SCG9	9087167	71	IFSQNMNIKLMPLY	15	3324.0607
Cypress	49011	Cup a 1	Q9SCG9	9087167	76	MNIKLMPLYVAGYK	15	3324.0613
Cypress	49011	Cup a 1	Q9SCG9	9087167	106	PCLFMRKASHVILHG	15	3324.0608
Cypress	49011	Cup a 1	Q9SCG9	9087167	131	LGDVLVSESIGVEPV	15	3324.0610
Cypress	49011	Cup a 1	Q9SCG9	9087167	186	TISNNHFFNHHKVM	15	3324.0612
Cypress	49011	Cup a 1	Q9SCG9	9087167	191	HFFNHHKVMMLLGHDD	15	3324.0605
Cypress	49011	Cup a 1	Q9SCG9	9087167	211	KSMKVTVAFNQFGPN	15	3324.0609
Cypress	49011	Cup a 1	Q9SCG9	9087167	231	PRARYGLVHVANNNY	15	3324.0611
Cypress	49011	Cup a 1	Q9SCG9	9087167	316	EDTNIYNSNEAFKVE	15	3324.0606
Cypress	13469	Cup s 1	Q9M4S2	257321241	1	MDSPCLIAVLVFLCA	15	3324.0617
Cypress	13469	Cup s 1	Q9M4S2	257321241	6	LIAVLVFLCAIVSCY	15	3324.0614
Cypress	13469	Cup s 1	Q9M4S2	257321241	11	VFLCAIVSCYSDNPI	15	3324.0625
Cypress	13469	Cup s 1	Q9M4S2	257321241	86	EKALWIIFSQNMNIK	15	3324.0615
Cypress	13469	Cup s 1	Q9M4S2	257321241	91	IIFSQNMNIKLMKMP	15	3324.0618
Cypress	13469	Cup s 1	Q9M4S2	257321241	96	NMNIKLMPLYVAGH	15	3324.0624
Cypress	13469	Cup s 1	Q9M4S2	257321241	126	GPCLFMRKVSHVILH	15	3324.0619
Cypress	13469	Cup s 1	Q9M4S2	257321241	131	MRKVSHVILHGLHIH	15	3324.0621
Cypress	13469	Cup s 1	Q9M4S2	257321241	151	VLGNVLVSESIGVEP	15	3324.0627
Cypress	13469	Cup s 1	Q9M4S2	257321241	211	NHFFNHHKVMMLLGHDD	15	3324.0616
Cypress	13469	Cup s 1	Q9M4S2	257321241	231	DKSMKVTVAFNQFGP	15	3324.0622
Cypress	13469	Cup s 1	Q9M4S2	257321241	256	YGLVHVANNNDQWN	15	3324.0626
Cypress	13469	Cup s 1	Q9M4S2	257321241	336	TEETNIYTSNEAFKV	15	3324.0620
Cypress	13469	Cup s 1	Q9M4S2	257321241	346	EAFKVENGNLAPQLT	15	3324.0623

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Cypress	13469	Cup s 3	Q69CS2	38456226	1	MARVSELALLLVATS	15	3324.0629
Cypress	13469	Cup s 3	Q69CS2	38456226	6	ELALLLVATS AISLH	15	3324.0628
Cypress	13469	Cup s 3	Q69CS2	38456226	11	LVATS AISLHM QEAG	15	3324.0630
Cypress	13469	Cup s 3	Q69CS2	38456226	56	TWTVNLAAGTASARF	15	3324.0632
Cypress	13469	Cup s 3	Q69CS2	38456226	116	DYDVS LVDGFNIPL	15	3337.0020
Cypress	13469	Cup s 3	Q69CS2	38456226	121	SLVDGFNIPLAINPT	15	3324.0631
Date palm	42345	Pho d 2	Q8L5D8	21322677	36	SSSFPQFKSEITNI	15	3324.1549
Date palm	42345	Pho d 2	Q8L5D8	21322677	61	APTGLYL GSTKYMVI	15	3324.1548
Date palm	42345	Pho d 2	Q8L5D8	21322677	66	YLGSTKYMVIQGE PG	15	3324.1546
Date palm	42345	Pho d 2	Q8L5D8	21322677	71	KYMV IQGEPGAVIRG	15	3324.1547
Date palm	42345	Pho d 2	Q8L5D8	21322677	91	GVTVKKT NQALIFGI	15	3324.1550
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	1	MKFVLAIA SLLVLST	15	3324.0664
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	6	AIASLLVLSTVYARP	15	3324.0665
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	11	LVLSTVYAR PASIKT	15	3324.0677
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	26	FEEFKKAFNK NYATV	15	3324.0681
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	46	ARKNFLES LKYVEAN	15	3324.0668
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	61	KGAINHLS DLSLDEF	15	3324.0683
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	71	SLDEFKNRYLMSAEA	15	3324.0672
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	76	KNRYLMSAEAFEQLK	15	3324.0667
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	81	MSAEAFEQLKTQFDL	15	3324.0684
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	86	FEQLKTQFDLSEETS	15	3324.0682
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	131	GSCWAFSGVAATESA	15	3324.0670
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	136	FSGVAATESAYLAYS	15	3324.0666
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	141	ATESAYLAYS RNTSLD	15	3324.0674
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	146	YLAYS RNTSLDLSSEQE	15	3324.0673
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	176	PRGIEYIQ QNGVVEE	15	3324.0679
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	221	PDVKQIREAL TQTHT	15	3324.0685
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	231	TQHTTAIAVHIGIKD	15	3324.0680
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	241	IGIKDLRAFQHYDGR	15	3324.0676
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	296	GDSGYGYFQAGNNLM	15	3324.0669
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	301	GYFQAGNNLMMIEQY	15	3324.0671
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	306	GNNLMMIEQYPYVVI	15	3324.0675
<i>Dermatophagoides farinae</i>	6954	Der f 1	A1YW11	119633260	307	NNLMMIEQYPYVVIM	15	3324.0678
<i>Dermatophagoides farinae</i>	6954	Der f 10	Q23939	42559584	101	RSEERLKIATAKLEE	15	3324.0686
<i>Dermatophagoides farinae</i>	6954	Der f 10	Q23939	42559584	106	LKIATAKLEEASQSA	15	3324.0689
<i>Dermatophagoides farinae</i>	6954	Der f 10	Q23939	42559584	191	VELEEELR VVGNLNLK	15	3324.0690
<i>Dermatophagoides farinae</i>	6954	Der f 10	Q23939	42559584	216	QREEAYEQ QIRIMTA	15	3324.0688
<i>Dermatophagoides farinae</i>	6954	Der f 10	Q23939	42559584	221	YEQQIRIMTAKLKEA	15	3324.0687
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	11	KLRKLL EDVHIESEE	15	3324.0719
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	61	KFQAEV FELLAQLET	15	3324.0692
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	66	VFELLAQLETANKEK	15	3324.0696
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	96	ELNIKIEINRTVIE	15	3324.0713
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	101	IEEINRTVIELTSHK	15	3324.0718
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	131	EVKLQLDNANHLKTQ	15	3324.0716
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	136	LDNANHLKTQIAAQL	15	3324.0699
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	141	HLKTQIAAQLEDTRH	15	3324.0717
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	171	AHTLEVELES LKVQL	15	3324.0709
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	191	ARLELERQLTKANGD	15	3324.0711
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	226	ELRRKMAQKISEYEE	15	3324.0714
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	236	SEYEEQLEALLNKCS	15	3324.0710
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	256	KSRLQSEVEVLIMDL	15	3324.0720
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	261	SEVEVLIMDLEKATR	15	3324.0706
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	281	EKRVAQLEKINLDLK	15	3324.0697
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	311	ELRVKIAELQKLQHE	15	3324.0715
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	316	IAELQKLQHEYEKLR	15	3324.0704
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	376	DELSAAYKEAETLRK	15	3324.0703
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	396	NQRLLAELA QVRH DY	15	3324.0698
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	421	IEALRKQYQIEIEQL	15	3324.0693
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	426	KQYQIEIEQLNMR LA	15	3324.0695
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	431	EIEQLNMR LAEAEAK	15	3324.0712
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	451	ARLKKKYQAQITEL E	15	3324.0691
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	456	KYQAQITEL ELSLDA	15	3324.0721
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	481	TIKKQALQITELQAH	15	3324.0702
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	521	QAELEEMRIALQAN	15	3324.0701
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	531	LEQANRAKRQAEQLH	15	3324.0722
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	556	TTINVNLSASAKSLE	15	3324.0708
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	566	KSKLESEFSALQADY	15	3324.0705
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	596	KLTIELKSTKDLLIE	15	3324.0694
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	601	LKSTKDLLIEEQERL	15	3324.0700

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	616	VKLETVKKLSLEQEV	15	3324.0723
<i>Dermatophagoides farinae</i>	6954	Der f 11	Q967Z0	42559514	631	TLHVRIEEVEANALA	15	3324.0707
<i>Dermatophagoides farinae</i>	6954	Der f 13	Q1M2P5	37958167	6	GKYKLEKSEKDFEFL	15	3324.0727
<i>Dermatophagoides farinae</i>	6954	Der f 13	Q1M2P5	37958167	26	GFMVKTAALKTKPTF	15	3324.0725
<i>Dermatophagoides farinae</i>	6954	Der f 13	Q1M2P5	37958167	46	NDQYIFRSLSTFKNT	15	3324.0724
<i>Dermatophagoides farinae</i>	6954	Der f 13	Q1M2P5	37958167	51	FRSLSTFKNTEAKFK	15	3324.0726
<i>Dermatophagoides farinae</i>	6954	Der f 14	Q94507	1545803	16	TRRYVAELTAVGSPS	15	3324.0735
<i>Dermatophagoides farinae</i>	6954	Der f 14	Q94507	1545803	51	KSPEHEFNTEFTIHA	15	3324.0731
<i>Dermatophagoides farinae</i>	6954	Der f 14	Q94507	1545803	91	DKENNVNRKNQLNLQY	15	3324.0737
<i>Dermatophagoides farinae</i>	6954	Der f 14	Q94507	1545803	96	VRKNQLNLQYKFGAD	15	3324.0734
<i>Dermatophagoides farinae</i>	6954	Der f 14	Q94507	1545803	116	VDYENEFNFNLRSS	15	3324.0738
<i>Dermatophagoides farinae</i>	6954	Der f 14	Q94507	1545803	141	AKYMSHFPILNHHK	15	3324.0736
<i>Dermatophagoides farinae</i>	6954	Der f 14	Q94507	1545803	146	SHFPILNHHKVNQFK	15	3324.0733
<i>Dermatophagoides farinae</i>	6954	Der f 14	Q94507	1545803	151	LNHKNVNIQFKYRPFK	15	3324.0730
<i>Dermatophagoides farinae</i>	6954	Der f 14	Q94507	1545803	156	NIQFKYRPFKVNELN	15	3324.0732
<i>Dermatophagoides farinae</i>	6954	Der f 14	Q94507	1545803	181	HKFQLMRNSQIEVEE	15	3324.0728
<i>Dermatophagoides farinae</i>	6954	Der f 14	Q94507	1545803	196	VRPFKMHGNSDIKLM	15	3324.0739
<i>Dermatophagoides farinae</i>	6954	Der f 14	Q94507	1545803	311	KIFINHKSEMTPKPTN	15	3324.0729
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	1	MKTIIYAILSIMACIG	15	3324.0740
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	6	AILSIMACIGLMNAS	15	3324.0744
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	11	MACIGLMNASIKRDH	15	3324.0746
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	91	SWEKRGYERFNNLRL	15	3324.0747
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	96	GYERFNNLRLKNPEL	15	3324.0743
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	106	KNPELTTMISLGGWY	15	3324.0753
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	131	ANPTYRQQFIQSVLD	15	3324.0755
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	136	RQQFIQSVLDFLQEQY	15	3324.0741
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	171	IDKQNYLALVRELKD	15	3324.0745
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	176	YLALVRELKDAFEPH	15	3324.0756
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	186	AFEPHGYLLTAAVSP	15	3324.0754
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	231	GWENFYGHNAPLYKR	15	3324.0748
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	251	ELHTYFNVNYTMHYY	15	3324.0742
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	256	FNVNYTMHYYLNGA	15	3324.0750
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	316	LSYIELCQLFQKEEW	15	3324.0749
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	361	KLAFKELGVSQVMV	15	3324.0751
<i>Dermatophagoides farinae</i>	6954	Der f 15	Q9U6R7	21444331	391	NPLLNKVNHNMGDE	15	3324.0752
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	6	KNFDVPIGHTFFFI	15	3324.0777
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	11	IPIGHTFFFIWRIKQ	15	3324.0772
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	16	TTTTWRIKQFELVP	15	3324.0761
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	21	WRIKQFELVPVPKED	15	3324.0759
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	111	EIEEFESRQFSSYFK	15	3324.0774
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	121	SSYFKNGIHYLKGGY	15	3324.0760
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	171	VMNNGDVIFILLVNF	15	3324.0768
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	176	DVIFILLVNFVFWWT	15	3324.0757
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	181	LVPNFVFWVTGKHSN	15	3324.0773
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	211	SELNRFKLSVILED	15	3324.0758
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	216	FKLSSVILEDGKEVE	15	3324.0767
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	236	EYDAFNKALSLDKKD	15	3324.0775
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	291	ISFVKNGLSRADLD	15	3324.0776
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	336	IKYAMELINKKKYPN	15	3324.0771
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	361	DESVEFKSLFESWQM	15	3324.0770
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	366	FKSLFESWQMSQEK	15	3324.0763
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	376	SEQEKITSARLFRVS	15	3324.0769
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	381	ITSARLFRVSRNGIF	15	3324.0764
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	416	VMDKIYVWIGNQFAE	15	3324.0766
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	421	YVWIGNQFAERIADE	15	3324.0762
<i>Dermatophagoides farinae</i>	6954	Der f 16	Q8MVU3	21591547	451	SGRKFQPNQIKLKK	15	3324.0765
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	1	MTRFSLTVLAVLAAC	15	3324.0778
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	6	LTVLAVLAACFGSNI	15	3324.0779
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	56	SLCTHIVSYFGIDA	15	3324.0786
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	61	IVYSYFGIDAATHEI	15	3324.0780
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	71	ATHEIKLLDEYLMKD	15	3324.0783
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	121	EHYRETFFVSTVDLML	15	3324.0787
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	126	TFVSTVDLMLTRYGF	15	3324.0790
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	171	HTSFVMGVTLPATIA	15	3324.0789
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	196	SNYVDFMNVLSLDYT	15	3324.0781
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	241	HKMVMVAVPYARTWI	15	3324.0792
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	246	AVPFYARTWILEKMN	15	3324.0785
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	281	DGFLSYNELCVQIQA	15	3324.0782
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	306	HDNTAIYAVYVHSNH	15	3324.0791

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	311	IYAVYVHNSHAEWIS	15	3324.0788
<i>Dermatophagoides farinae</i>	6954	Der f 18	Q86R84	27550039	366	PLLHAIQSNYYHGCV	15	3324.0784
<i>Dermatophagoides farinae</i>	6954	Der f 2	Q00855	83755018	1	MISKILCCLSLVAAV	15	3324.0794
<i>Dermatophagoides farinae</i>	6954	Der f 2	Q00855	83755018	6	LCLSLVAAVVADQV	15	3324.0793
<i>Dermatophagoides farinae</i>	6954	Der f 2	Q00855	83755018	51	PFTLEALFDANQNTK	15	3324.0795
<i>Dermatophagoides farinae</i>	6954	Der f 2	Q00855	83755018	101	QQYDIKYTWNVPKIA	15	3324.0796
<i>Dermatophagoides farinae</i>	6954	Der f 2	Q00855	83755018	121	VVVTVKLGIDNGVLA	15	3337.0026
<i>Dermatophagoides farinae</i>	6954	Der f 3	P49275	1311457	1	MMILTIIVVLLAANIL	15	3324.0798
<i>Dermatophagoides farinae</i>	6954	Der f 3	P49275	1311457	6	IVVLLAANILATPIL	15	3324.0797
<i>Dermatophagoides farinae</i>	6954	Der f 3	P49275	1311457	11	AANILATPILPSSPN	15	3324.0803
<i>Dermatophagoides farinae</i>	6954	Der f 3	P49275	1311457	36	AGDCPYQISLQSSSH	15	3324.0804
<i>Dermatophagoides farinae</i>	6954	Der f 3	P49275	1311457	41	YQISLQSSSHFCGGS	15	3324.0802
<i>Dermatophagoides farinae</i>	6954	Der f 3	P49275	1311457	56	ILDEYWILTAACHVN	15	3324.0800
<i>Dermatophagoides farinae</i>	6954	Der f 3	P49275	1311457	76	KLIRYNTLKHASGG	15	3324.0799
<i>Dermatophagoides farinae</i>	6954	Der f 3	P49275	1311457	111	NDVALIKLKTPTMLD	15	3324.0801
<i>Dermatophagoides farinae</i>	6954	Der f 6	P49276	14424450	1	MIKIFLVTLIVITV	15	3324.0805
<i>Dermatophagoides farinae</i>	6954	Der f 6	P49276	14424450	6	LVTILIVITVTDAR	15	3324.0807
<i>Dermatophagoides farinae</i>	6954	Der f 6	P49276	14424450	26	QPKWAYLDSNEFPRS	15	3324.0810
<i>Dermatophagoides farinae</i>	6954	Der f 6	P49276	14424450	61	APFQISLLKDYILMK	15	3324.0806
<i>Dermatophagoides farinae</i>	6954	Der f 6	P49276	14424450	66	SLLKDYILMKRHMCG	15	3324.0811
<i>Dermatophagoides farinae</i>	6954	Der f 6	P49276	14424450	141	KTIILPNNPVVSTN	15	3324.0809
<i>Dermatophagoides farinae</i>	6954	Der f 6	P49276	14424450	265	TRPKYYLDWITKNIV	15	3324.0808
<i>Dermatophagoides farinae</i>	6954	Der f 7	Q26456	1311689	1	MMKFLLLAAVAFVAV	15	3324.0812
<i>Dermatophagoides farinae</i>	6954	Der f 7	Q26456	1311689	6	LAAVAVFVAVSADPI	15	3324.0813
<i>Dermatophagoides farinae</i>	6954	Der f 7	Q26456	1311689	11	AFVAVSADPIHYDKI	15	3324.0818
<i>Dermatophagoides farinae</i>	6954	Der f 7	Q26456	1311689	111	IVSMEYDLAYKLGDL	15	3324.0817
<i>Dermatophagoides farinae</i>	6954	Der f 7	Q26456	1311689	131	VISDIQDFVVALSLE	15	3324.0819
<i>Dermatophagoides farinae</i>	6954	Der f 7	Q26456	1311689	136	QDFVVALSLEISDEG	15	3324.0814
<i>Dermatophagoides farinae</i>	6954	Der f 7	Q26456	1311689	156	SFEVRQFANVVNHIG	15	3324.0815
<i>Dermatophagoides farinae</i>	6954	Der f 7	Q26456	1311689	161	QFANVVNHIGGLSIL	15	3324.0822
<i>Dermatophagoides farinae</i>	6954	Der f 7	Q26456	1311689	166	VNHIGGLSILDPFIF	15	3324.0821
<i>Dermatophagoides farinae</i>	6954	Der f 7	Q26456	1311689	171	GLSILDPFIFGLSDV	15	3324.0820
<i>Dermatophagoides farinae</i>	6954	Der f 7	Q26456	1311689	176	DPFIFGLSDVLTAF	15	3324.0816
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	1	MKIVLAIASLLALS	15	3324.0823
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	6	AIASLLALSVAAYAR	15	3324.0826
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	11	LALSVAAYARPSIKT	15	3324.0828
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	31	KAFNKSYATFEDEEA	15	3324.0834
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	46	ARKNFLESVKYQSN	15	3324.0839
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	51	LESVKYQSNNGAIN	15	3324.0838
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	61	GGAINHLSLSDLEDF	15	3324.0842
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	71	SLDEFKNRFLMSAEA	15	3324.0830
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	76	KNRFLMSAEAEFHLK	15	3324.0824
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	81	MSAEAEFHLKTFDL	15	3324.0844
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	86	FEHLKTFDLNAETN	15	3324.0841
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	111	EIDLRQMRVTPIRM	15	3324.0836
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	131	SCWAFSGVAATESAY	15	3324.0832
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	136	SGVAATESAYLAYRN	15	3324.0829
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	141	TESAYLAYRNQSLDL	15	3324.0825
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	176	RGIEYQHNGVVQES	15	3324.0831
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	186	VVQESYYRYVAREQS	15	3324.0833
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	211	ISNYCQIYPPNVNKI	15	3324.0837
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	226	REALAQTHSAIAVII	15	3324.0840
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	231	QTHSAIAVIIIGKDL	15	3324.0835
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	296	DNGYGYFAANIDLMM	15	3324.0827
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 1	P08176	83754033	306	IDLMMIEEYPYVVIL	15	3324.0843
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 10	O18416	2440053	101	RSEERLKIATAKLEE	15	3324.0845
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 10	O18416	2440053	106	LKIATAKLEEAQSQA	15	3324.0847
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 10	O18416	2440053	191	VELEELRLRVVGNLK	15	3324.0848
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 10	O18416	2440053	221	HEQQIRIMTTKLKEA	15	3324.0846
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	61	AELQIQVMSLSERLE	15	3324.0856
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	146	QKFQAEVFELLSQLE	15	3324.0855
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	151	EVFELLSQLENTANKE	15	3324.0850
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	176	LEYTVHELNIKIEEI	15	3324.0873
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	181	HELNIKIEEINRTVI	15	3324.0869
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	216	HEVKQLQLDNANHLKQ	15	3324.0859
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	226	NHLKQQLQALQLEDT	15	3324.0853
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	276	EARLELERQLTKANG	15	3324.0866
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	311	EELRRKMAQKISEYE	15	3324.0867
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	346	QSEVEVLIMDLEKAA	15	3324.0874

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	351	VLIMDLEKAAAHAQQ	15	3324.0876
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	481	KNQRLLIAELAQRVHD	15	3324.0851
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	506	EIEALRKQYQIEIEQ	15	3324.0852
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	511	RKQYQIEIEQLNMRLL	15	3324.0854
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	516	IEIEQLNMRLLAEAEA	15	3324.0871
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	536	IARLKKKYQAQITEL	15	3324.0870
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	541	KKYQAQITELELSLD	15	3324.0860
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	566	KTIKKQALQITELQA	15	3324.0872
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	611	EEMRIALEQASRAKR	15	3324.0858
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	636	VRVNELTTINVNLAS	15	3324.0864
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	641	LTTINVNLASAKSKL	15	3324.0861
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	646	VNLSAKSKLESEFS	15	3324.0877
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	651	AKSKLESEFSALQAD	15	3324.0857
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	681	QKLTIELKSTKDLLI	15	3324.0849
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	686	ELKSTKDLLIEQER	15	3324.0868
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	701	LVKLETVKKSLQEVE	15	3324.0862
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	716	RTLHVRIEEVEANAL	15	3324.0875
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	731	AGGKRVIAKLESRRIR	15	3324.0863
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 11	Q6Y2F9	37778944	836	DQAESNLSFIRAKHR	15	3324.0865
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	31	AQSTYVYVSLDAKTVL	15	3324.0886
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	36	VYSLDAKTVLTPRDS	15	3324.0936
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	61	VAFVSDCEAVLRLQN	15	3324.0923
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	66	DCEAVLRLQNVAIDG	15	3324.0912
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	96	FAFGYFNGRILGVCP	15	3324.0914
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	116	DWSLNVKKAIVSSLQ	15	3324.0888
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	121	VKKAIVSSLQALSQSDG	15	3324.0880
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	236	KPVHMSYVKKMMLKQN	15	3324.0926
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	286	EVLKKLCEITEPEQA	15	3324.0913
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	306	FTFQKLVDKLRYLSA	15	3324.0915
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	311	LVDKLRYLSAEETAS	15	3324.0909
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	341	RLRELFLDASAFSAAS	15	3324.0879
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	346	FLDASAFASDGSIR	15	3324.0907
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	371	LSITRSTALFTVAAI	15	3324.0882
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	376	STALFTVAAIKAAPN	15	3324.0878
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	391	KETVQVLLPVIASEK	15	3324.0900
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	406	TIRPMLLGFSLVRRR	15	3324.0902
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	436	DARDAYLARLAVARD	15	3324.0904
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	441	YLARLAVARDASERM	15	3324.0897
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	451	ASERM TIVRALENLN	15	3324.0903
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	456	TIVRALENLN VNTD G	15	3324.0933
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	476	NAMDEIHKSTDAEPA	15	3324.0918
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	486	DAEPAMRAAAVNALP	15	3324.0924
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	536	MSHIKDLFAVKGECM	15	3324.0917
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	551	KNYVLT YVDNLKSK	15	3324.0891
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	631	LKELVEFQVTQSGFD	15	3324.0883
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	646	RELNNAMSLLEKKS F	15	3324.0932
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	651	AMSLLEKKS FQSVMQ	15	3324.0911
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	656	EKKS FQSVMQFLRDM	15	3324.0905
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	661	QSVMQFLRDM LKMLS	15	3324.0895
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	666	FLRDM LKMLS QIRKN	15	3324.0889
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	671	LKMLS QIRKN ADDNH	15	3324.0927
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	736	LDSKLVLP TITGLPL	15	3324.0908
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	746	TGLPLMYKFGDNLVV	15	3324.0922
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	811	MIDMNVQKQEHSLLV	15	3324.0928
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	816	VQKQEHSLLVRFNMK	15	3324.0935
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	836	TVMRFKQSLREKRAT	15	3324.0920
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	901	KEVTALEMLKSETQ	15	3324.0901
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	916	DKTRRYLAEMTAVGS	15	3324.0921
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	971	NLKMHM DLPNVLQAD	15	3324.0929
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	996	NNVRKNRLNLQYKFA	15	3324.0930
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1021	ENEFLFNLRKSSKEK	15	3324.0925
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1041	YRAKYMSSHFPILNH	15	3324.0910
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1051	PILNHKVN VQFKYRP	15	3324.0919
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1061	FKYRPFKVN NLELG	15	3324.0906
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1081	LQHKFR LMRNSQMEV	15	3324.0892
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1211	DKKIFITHKTEMTKP	15	3324.0887
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1271	LFYENYLTVHKGKGL	15	3324.0885
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1291	RNDRKILLDLDNALS	15	3324.0896
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1296	ILLDLDNALSPREGT	15	3324.0890

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1346	NGKLHLSLIDPSTLS	15	3324.0894
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1351	LSLIDPSTLSLVTKA	15	3324.0893
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1511	GKLEGVLSRKVPSHL	15	3324.0916
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1516	VLSRKVPSHLLTLETP	15	3324.0934
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1566	PGVQYKIINGNGKIKD	15	3324.0931
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1636	FDPHRAYYINWISSI	15	3324.0899
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1641	AYYINWISSIRKYIQ	15	3324.0898
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1646	WISSIRKYIQNFIVE	15	3324.0884
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 14	Q8NoNo	20385544	1648	SSIRKYIQNFIVEDH	15	3324.0881
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 2	P49278	21465916	1	MMYKILCLSLVAAV	15	3324.0937
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 2	P49278	21465916	6	LCLSLVAAVARDQV	15	3324.0938
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 2	P49278	21465916	46	IHRGKPFQLEAVFEA	15	3324.0939
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 2	P49278	21465916	51	PFQLEAVFEANQNTK	15	3324.0941
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 2	P49278	21465916	101	QQYDIKYTNVNPQIA	15	3324.0940
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 20	DERP20SEQ	188485735	26	LLKKYLTRDVFQDLK	15	3324.0943
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 20	DERP20SEQ	188485735	31	LTRDVFQDLKKNKTD	15	3324.0944
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 20	DERP20SEQ	188485735	71	DAQSYKTFAALFDPI	15	3324.0942
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 20	DERP20SEQ	188485735	76	KTFAALFDPIIDDYH	15	3324.0945
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 20	DERP20SEQ	188485735	131	LNGYFPNPMLEAQY	15	3324.0946
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 21	Q2L7C5	85687540	1	MKFIITLFAAIVMAA	15	3324.0947
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 21	Q2L7C5	85687540	6	TLFAAIVMAAASVSGF	15	3324.0949
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 21	Q2L7C5	85687540	11	IVMAAASVGFIVGDK	15	3324.0951
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 21	Q2L7C5	85687540	26	KEDEWRMAFDRLMME	15	3324.0954
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 21	Q2L7C5	85687540	31	RMAFDRLMMEELETK	15	3324.0956
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 21	Q2L7C5	85687540	51	KGLLHLSEQYKLEK	15	3324.0955
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 21	Q2L7C5	85687540	86	MKGALKFFEMEAKRT	15	3324.0950
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 21	Q2L7C5	85687540	106	ERYNYEFALESIKLL	15	3324.0948
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 21	Q2L7C5	85687540	111	EFALESIKLLIKLD	15	3324.0952
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 21	Q2L7C5	85687540	116	SIKLLIKKLDLAKK	15	3324.0953
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	1	MIYINLIVLLLAIN	15	3324.0957
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	6	ILIVLLLAINLANP	15	3324.0958
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	11	LLAINLANPILPAS	15	3324.0962
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	16	TLANPILPASP NATI	15	3324.0969
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	41	CPYQISLQSSSHFCG	15	3324.0961
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	56	GTILDEYWILTAACH	15	3324.0959
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	61	EYWILTAACHVAGQT	15	3324.0966
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	76	ASKLSIRYNSLKHSL	15	3324.0963
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	81	IRYNSLKHSLGGEKI	15	3324.0968
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	91	GGEKISVAKIFAHEK	15	3324.0964
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	111	IDNDIALIKLKSPMK	15	3324.0967
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	116	ALIKLKSPMKLNQKN	15	3324.0965
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 3	P39675	729315	166	SELRRVDIAVVRKE	15	3324.0960
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	1	KYHNPHFIGNRSVIT	15	3324.0983
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	6	HFIGNRSVITHLMEW	15	3324.0982
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	86	NKAGVRIYVDIVLNH	15	3324.0981
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	91	RIYVDIVLNHMTGAQ	15	3324.0988
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	96	IVLNHMTGAQSGKGT	15	3324.0987
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	176	QVDFLNHLIDIGVAG	15	3324.0984
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	201	PDDLRSIYSLHLNHLN	15	3324.0979
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	206	SIYSLHLNHLNKEFFP	15	3324.0989
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	221	ENSPPIFYHETIYYG	15	3324.0990
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	251	IEFRFYKEITNVFRG	15	3324.0976
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	286	DALVMIDSHDLRVGH	15	3324.0992
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	311	FEGRLKKAATAFMLA	15	3324.0973
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	316	LKAATAFMLAWNYGV	15	3324.0972
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	321	AFMLAWNYGVPRVMS	15	3324.0977
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	331	PRVMSYFWNQIHKD	15	3324.0991
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	381	EHRWREIYNMVKFRM	15	3324.0986
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	386	EIYNMVKFRMIAGQE	15	3324.0978
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	391	VKFRMIAGQEPVHNW	15	3324.0993
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	411	YQIAFSRGNRAFIAI	15	3324.0980
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	416	SRGNRAFIAINLKQN	15	3324.0974
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	421	AFIAINLQKNQNLQ	15	3324.0985
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	476	YVGHDFDAFVAYHI	15	3324.0975
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	481	EFDADFVAYHIGARIV	15	3324.0970
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 4	Q9Y197	5059162	482	FDAFVAYHIGARIVS	15	3324.0971
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 5	P14004V	1352238	6	KDPKPLKKSIMKFI	15	3324.0999
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 5	P14004V	1352238	11	LKKISIMKFIIAFFV	15	3324.0996
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 5	P14004V	1352238	16	IMKFIIAFFVATLAV	15	3324.0994

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 5	P14004V	1352238	21	IAFFVATLAVMTVSG	15	3324.0995
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 5	P14004V	1352238	46	FDLLMERIHEQIKK	15	3324.0998
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 5	P14004V	1352238	61	GELALFYLQEQINHF	15	3324.0997
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 5	P14004V	1352238	66	FYLQEQINHFEEKPT	15	3324.1000
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 5	P14004V	1352238	106	DRLMQRKDLDFEQT	15	3324.1002
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 5	P14004V	1352238	111	RKDLDFEQYNLEMA	15	3324.1001
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 6	P49277(IUIS)	1352239	1	MIKIITTHIITVV	15	3324.1003
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 6	P49277(IUIS)	1352239	6	TTIILITVVVDCRF	15	3324.1004
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 6	P49277(IUIS)	1352239	26	PKWSYLDLSPASSSM	15	3324.1005
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 6	P49277(IUIS)	1352239	36	ASSMMNDNSSPIAG	15	3327.0027
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	1	MMKLLLIAAAAFVAV	15	3324.1006
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	6	LIAAAAFVAVSADPI	15	3324.1007
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	11	AFVAVSADPIHYDKI	15	3324.1012
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	111	VVSMEYDLAYLKGDL	15	3324.1015
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	131	VISDIQDFVVELSLE	15	3324.1019
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	136	QDFVVELSLEVSEEG	15	3324.1009
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	151	NMTLTSFEVRQFANV	15	3324.1014
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	156	SFEVRQFANVVNHIG	15	3324.1010
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	161	QFANVVNHIGLSIL	15	3324.1016
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	166	VNHIGLSILDPIFA	15	3324.1013
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	171	GLSILDPIFAVLSDV	15	3324.1011
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	176	DPIFAVLSDVLTAF	15	3324.1008
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	186	LTAIFQDTRVRAEMTK	15	3324.1018
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 7	P49273	292659601	196	AEMTKVLAPAFKKEL	15	3324.1017
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 8	P46419	1170095	16	QPIRLLLTYSGVDFV	15	3324.1025
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 8	P46419	1170095	46	EWLNEKFNGLDFPN	15	3324.1029
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 8	P46419	1170095	66	DGDMKMTQTFAILRY	15	3324.1027
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 8	P46419	1170095	71	MTQTFAILRYLGRKY	15	3324.1022
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 8	P46419	1170095	136	LKLMKSFVGEHAFIA	15	3324.1023
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 8	P46419	1170095	141	KFVGEHAFIAGANIS	15	3324.1021
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 8	P46419	1170095	146	HAFIAGANISYVDFN	15	3324.1020
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 8	P46419	1170095	156	YVDFNLYEYLCHVKV	15	3324.1026
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 8	P46419	1170095	171	MVPEVFGQFENLKRY	15	3324.1024
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 8	P46419	1170095	181	NLKRYVERMESLPRV	15	3324.1028
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	1	MKFMILFALIAIGTS	15	3324.1030
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	6	LFALIAIGTSVAIGE	15	3324.1038
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	31	ITEKFPWMINEPLND	15	3324.1034
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	56	ASPGDAVYQIALFRK	15	3324.1041
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	61	AVYQIALFRKDSFTC	15	3324.1044
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	76	GGSLISSRTVLTAAH	15	3324.1042
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	96	EATPSYFKIRYNTLD	15	3324.1031
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	101	YFKIRYNTLDRTNGP	15	3324.1032
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	121	KIYRHNLYSSPIDY	15	3324.1045
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	131	SPIDYDVATLILSQP	15	3324.1033
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	136	DVATLILSQPFTPSA	15	3324.1037
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	181	TLPTILQIASVTKMS	15	3324.1036
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	201	STWGSVNAITNMLC	15	3324.1035
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	251	STKYPTIYSNVANLR	15	3324.1039
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	256	TIYSNVANLRNWIIS	15	3324.1040
<i>Dermatophagoides pteronyssinus</i>	6956	Der p 9	Q7Z163	31745576	259	SNVANLRNWIISNTV	15	3324.1043
Dog epithelia	9615	Can f 1	O18873	29292148	1	MKTLLLTIGFSLIAI	15	3324.0474
Dog epithelia	9615	Can f 1	O18873	29292148	6	LTIGFSLIAILQAQD	15	3324.0473
Dog epithelia	9615	Can f 1	O18873	29292148	11	SLIAILQAQDTPALG	15	3324.0475
Dog epithelia	9615	Can f 1	O18873	29292148	31	VSGKWYLKAMTADQE	15	3324.0478
Dog epithelia	9615	Can f 1	O18873	29292148	36	YLKAMTADQEVPEKP	15	3324.0480
Dog epithelia	9615	Can f 1	O18873	29292148	91	PGKYTAYEQRVVFI	15	3324.0479
Dog epithelia	9615	Can f 1	O18873	29292148	96	AYEGQRVVFIQPSPV	15	3324.0476
Dog epithelia	9615	Can f 1	O18873	29292148	101	RVVFIQPSPVRDHYI	15	3324.0477
Dog epithelia	9615	Can f 2	O18874	3121746	1	MQLLLTVGLALICG	15	3324.0482
Dog epithelia	9615	Can f 2	O18874	3121746	36	RWHSVALASNKSDLI	15	3324.0484
Dog epithelia	9615	Can f 2	O18874	3121746	51	KPWGHFRVFIHMSMA	15	3324.0483
Dog epithelia	9615	Can f 2	O18874	3121746	56	FRVFIHMSMAKDGNL	15	3324.0485
Dog epithelia	9615	Can f 2	O18874	3121746	81	QCEKVSMTAFKTATS	15	3324.0486
Dog epithelia	9615	Can f 2	O18874	3121746	86	SLTAFKTATSNKFDL	15	3324.0489
Dog epithelia	9615	Can f 2	O18874	3121746	116	KSYLILYMINQYND	15	3324.0481
Dog epithelia	9615	Can f 2	O18874	3121746	121	LYMINQYNDTSLVA	15	3324.0488
Dog epithelia	9615	Can f 2	O18874	3121746	131	TSLVAHLMVRDLRSRQ	15	3324.0487
Dog epithelia	9615	Can f 3	P49822	56757408	1	MKWVTFISLFFLFSS	15	3324.0490
Dog epithelia	9615	Can f 3	P49822	56757408	6	FISLFFLFSSAYSRRG	15	3324.0491

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Mugwort	4220	Art v 2	A6GVD5	148887203	1	MGHLGNFWLVLAIISF	15	3324.0109
Mugwort	4220	Art v 2	A6GVD5	148887203	6	NFWLVLAIISFAILHL	15	3324.0107
Mugwort	4220	Art v 2	A6GVD5	148887203	11	LAIISFAILHLSHAHE	15	3324.0108
Mugwort	4220	Art v 2	A6GVD5	148887203	86	AQGAINGSMVAQLWL	15	3324.0111
Mugwort	4220	Art v 2	A6GVD5	148887203	121	TQIVWANSERVCGCR	15	3337.0011
Mugwort	4220	Art v 2	A6GVD5	148887203	141	GWAYIIVCNYDPPGN	15	3324.0110
Mugwort	4220	Art v 3	C4MGH1	189544590	1	MAIKMMKVFCIMVVC	15	3324.0112
Mugwort	4220	Art v 3	C4MGH1	189544590	6	MKVFCIMVVCMVVST	15	3324.0116
Mugwort	4220	Art v 3	C4MGH1	189544590	11	IMVVCMVVSTSYAES	15	3324.0114
Mugwort	4220	Art v 3	C4MGH1	189544590	16	MVVSTSYAESALTCS	15	3324.0117
Mugwort	4220	Art v 3	C4MGH1	189544590	76	CLKASFKNKDLKSD	15	3337.0012
Mugwort	4220	Art v 3	C4MGH1	189544590	81	FKSNKDLKSDFAVPL	15	3324.0115
Mugwort	4220	Art v 3	C4MGH1	189544590	86	DLKSDFAVPLPSKCG	15	3324.0113
Mugwort	4220	Art v 4	Q8H2C8	73621416	16	EGTGQHLTAAAILGL	15	3324.0119
Mugwort	4220	Art v 4	Q8H2C8	73621416	51	GIINEFNVEVGTLAPT	15	3337.0013
Mugwort	4220	Art v 4	Q8H2C8	73621416	66	GLFLGGAKYMLVQGE	15	3324.0120
Mugwort	4220	Art v 4	Q8H2C8	73621416	71	GAKYMLVQGEAGAVI	15	3324.0118
Orchard grass	4509	Dac g 1	Q7XAX7	18093991	6	SSVLLVVALFAVFLG	15	3324.0653
Orchard grass	4509	Dac g 1	Q7XAX7	18093991	11	VVALFAVFLGSAHGI	15	3324.0654
Orchard grass	4509	Dac g 1	Q7XAX7	18093991	121	EEPIAPYHFDLSGHA	15	3324.0656
Orchard grass	4509	Dac g 1	Q7XAX7	18093991	181	PNYLALLVKYVDGDG	15	3324.0655
Orchard grass	4509	Dac g 1	Q7XAX7	18093991	211	IALKESWGAIWRVDT	15	3337.0022
Orchard grass	4509	Dac g 2	Q41183	255657	11	GSDEKNLALSIIKYNK	15	3324.0657
Orchard grass	4509	Dac g 2	Q41183	255657	16	NLALSIIKYNKEGDSM	15	3324.0658
Orchard grass	4509	Dac g 2	Q41183	255657	21	IKYNKEGDSMAEVEL	15	3337.0023
Orchard grass	4509	Dac g 3	P93124	14423759	51	LWEVKSSKPLTGPFN	15	3337.0024
Orchard grass	4509	Dac g 3	P93124	14423759	76	NVFDEVIPATAFKIGT	15	3324.0659
Orchard grass	4509	Dac g 3	P93124	14423759	82	IPTAFKIGTTTYTPEE	15	3324.0660
Orchard grass	4509	Dac g 4	P82946	32363463	1	DIYNYMEPYVSKVDP	15	3324.0663
Orchard grass	4509	Dac g 4	P82946	32363463	26	TAWVDSGAQLGELSY	15	3337.0025
Orchard grass	4509	Dac g 4	P82946	32363463	36	GELSYGVLFNIQYVN	15	3324.0662
Orchard grass	4509	Dac g 4	P82946	32363463	41	GVLFNIQYVNYWFAP	15	3324.0661
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	1	MGFLKVLATSLATLA	15	3324.1295
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	6	VLATSLATLAVVDAG	15	3324.1300
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	26	SNTDAVIPSSYIVVM	15	3324.1309
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	31	VIPSSYIVVMNDVDS	15	3324.1310
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	36	YIVVMNDDVSTAEFS	15	3324.1311
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	101	PAVKYIEPDMIVNAT	15	3324.1304
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	106	IEPDMIVNATANVVQ	15	3324.1298
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	111	IVNATANVQSNVPS	15	3324.1306
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	126	WGLARISSKRTGTTS	15	3324.1312
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	201	YGVAKKATLVAVKVL	15	3324.1305
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	206	KATLVAVKVLGADGS	15	3324.1307
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	261	NDAANVVKSGIFLS	15	3324.1308
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	266	NVVKSGIFLSVAAGN	15	3324.1299
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	271	GIFLSVAAGNEAENA	15	3324.1303
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	346	APHVAGVAAYLMALE	15	3324.1296
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	351	GVAAYLMALEGVSAG	15	3324.1297
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	366	NACARIVQLATSSIS	15	3324.1301
Penicillium chrysogenum	5076	Pen ch 13	Q9URR2	6684758	371	IVQLATSSISRAPSG	15	3324.1302
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	1	MKGFLSLTLLPLLVA	15	3324.1314
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	6	SLTLLPLLVAASPVA	15	3324.1315
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	11	PLLVAASPVAVNSIH	15	3324.1319
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	26	NDAAPILSMTSKDI	15	3324.1332
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	81	SLFGFDPEAFMGLKH	15	3324.1316
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	91	MGLKHTFFHIAGSLLG	15	3324.1318
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	96	TFHIAGSLLYAGHF	15	3324.1323
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	176	VDAYVIDTGANVKHV	15	3324.1327
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	226	KFGVAKKANVYAVKV	15	3324.1330
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	236	YAVKVLRSNGSMTLS	15	3324.1320
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	271	DKKFKGSVANMSLGG	15	3324.1329
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	291	LDLAVNAAVDAGIHF	15	3324.1331
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	301	AGIHFAVAAGNDNAD	15	3324.1324
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	351	IFAPGLNILSTVWGS	15	3324.1325
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	376	SMASPHIAGLLAYYV	15	3324.1321
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	381	HIAGLLAYYVSLAPA	15	3324.1313
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	406	TPKQLKAALISVATE	15	3324.1317
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	411	KAALISVATEGTLTD	15	3324.1326
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	466	IGIIDSAAEKAFHKE	15	3324.1322

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Penicillium chrysogenum	5076	Pen ch 18	Q9P8G3	7963902	476	AFHKELGAIYSEIKD	15	3324.1328
Prickly juniper	69008	Jun o 4	O64943	5391446	46	ELADILRSLGSDVGE	15	3324.1129
Prickly juniper	69008	Jun o 4	O64943	5391446	76	GYVSLQEFVDLNNKG	15	3324.1131
Prickly juniper	69008	Jun o 4	O64943	5391446	146	LISVEEFQTMMTSEM	15	3324.1130
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	81	EKVKIERLHPYITLY	15	3324.1599
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	86	ERLHPYITLYGIDPK	15	3324.1597
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	101	NRPTITFAGTAAEFG	15	3324.1595
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	111	AAEFGTVDSATLIVE	15	3324.1596
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	126	SDYFVGANLIVSNSA	15	3324.1594
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	131	GANLIVSNSAPRPDG	15	3324.1601
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	191	EGTVDFIFGEARSLY	15	3324.1590
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	196	FIFGEARSLYLNTEL	15	3324.1591
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	251	LGRAWFEEARVVFSY	15	3324.1592
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	256	FEAARVVFSYCNLSD	15	3324.1593
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	316	ADAKTFTSLEYIEAA	15	3324.1598
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	321	FTSLEYIEAAKWLLP	15	3324.1589
Russian thistle	151250	Sal k 1 1	Q17ST3	59895730	325	EYIEAAKWLLPPPKV	15	3324.1600
Russian thistle	151250	Sal k 1 2	P83181	25090947	11	RTIFFDAYLGTSYVI	15	3324.1602
Russian thistle	151250	Sal k 1 2	P83181	25090947	16	DAYLGTSYVIVIKEP	15	3324.1603
Russian thistle	151250	Sal k 1 2	P83181	25090947	21	TSYVIVIKEPAEEFT	15	3324.1604
Russian thistle	151250	Sal k 1_2	P83181	25090947	28	KEPAEEFTTISDAVK	15	3337.0045
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	56	ISYRVYTLKEIEVGT	15	3324.1617
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	66	IEVGTDFYSSSLKIG	15	3324.1616
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	86	PVYRAMLQHTPVAIK	15	3324.1610
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	96	PVAIKVLRPNVSQL	15	3324.1615
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	141	LVYEYMENGSLEDRL	15	3324.1614
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	151	LEDRLFRKNNSPIP	15	3324.1620
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	166	WKLRFKIAAIAIAL	15	3324.1607
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	171	KIAAEIAIALFLRL	15	3324.1606
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	176	IAIALFLRDAKPEP	15	3324.1608
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	201	ILLDGNYSKIADV	15	3324.1612
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	211	IADVGLARLVPPTVA	15	3324.1619
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	256	KSDIYDFGILLQLL	15	3324.1605
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	261	SFGIILLQLLTARPP	15	3324.1609
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	266	LLQLLTARPPMALSY	15	3324.1613
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	301	DWPVQEQALSALAL	15	3324.1611
Russian thistle	151250	Sal k 2	Q8L5K9	22726221	306	EALSALQALAKCEG	15	3324.1618
Russian thistle	151250	Sal k 3	C1KEU0	225810599	51	DAGIKYIPSNTFAYY	15	3324.1622
Russian thistle	151250	Sal k 3	C1KEU0	225810599	56	YIPSNTFAYYDQVLD	15	3324.1667
Russian thistle	151250	Sal k 3	C1KEU0	225810599	86	GGEIGFDLYFSMARG	15	3324.1642
Russian thistle	151250	Sal k 3	C1KEU0	225810599	91	FDLYFSMARGNASLP	15	3324.1653
Russian thistle	151250	Sal k 3	C1KEU0	225810599	111	KWFDTNHYHYVPELG	15	3324.1654
Russian thistle	151250	Sal k 3	C1KEU0	225810599	126	PEVKFAYSSHKAVDE	15	3324.1644
Russian thistle	151250	Sal k 3	C1KEU0	225810599	136	KAVDEYKEAKALGVD	15	3324.1662
Russian thistle	151250	Sal k 3	C1KEU0	225810599	156	VGPVSYLLLSKAAKG	15	3324.1651
Russian thistle	151250	Sal k 3	C1KEU0	225810599	161	YLLLSKAAKGVEKSF	15	3324.1659
Russian thistle	151250	Sal k 3	C1KEU0	225810599	166	KAAGKVEKSFLLSL	15	3324.1643
Russian thistle	151250	Sal k 3	C1KEU0	225810599	171	VEKSFLLSLLPKIL	15	3324.1631
Russian thistle	151250	Sal k 3	C1KEU0	225810599	176	PLLSLLPKILPVYKE	15	3324.1645
Russian thistle	151250	Sal k 3	C1KEU0	225810599	186	PVYKEVIAELKAAGA	15	3324.1634
Russian thistle	151250	Sal k 3	C1KEU0	225810599	191	VIAELKAAGASTIQF	15	3324.1632
Russian thistle	151250	Sal k 3	C1KEU0	225810599	231	STLSGLNVLVETYFA	15	3324.1664
Russian thistle	151250	Sal k 3	C1KEU0	225810599	236	LNVLVETYFADLTPE	15	3324.1655
Russian thistle	151250	Sal k 3	C1KEU0	225810599	241	ETYFADLTPEAYKTL	15	3324.1641
Russian thistle	151250	Sal k 3	C1KEU0	225810599	251	AYKTLVSLNGVTAFG	15	3324.1652
Russian thistle	151250	Sal k 3	C1KEU0	225810599	261	VTAFGFDLVRGTFKL	15	3324.1640
Russian thistle	151250	Sal k 3	C1KEU0	225810599	281	GFPSGKYLFAGVVDG	15	3324.1648
Russian thistle	151250	Sal k 3	C1KEU0	225810599	296	RNIWANDLAASLATAL	15	3324.1638
Russian thistle	151250	Sal k 3	C1KEU0	225810599	301	NDLAASLATALQSLES	15	3324.1628
Russian thistle	151250	Sal k 3	C1KEU0	225810599	306	SLATALQSLESIVGKD	15	3324.1647
Russian thistle	151250	Sal k 3	C1KEU0	225810599	341	TKLDDEIKSWLAFAA	15	3324.1630
Russian thistle	151250	Sal k 3	C1KEU0	225810599	346	EIKSWLAFAAQKVLE	15	3324.1621
Russian thistle	151250	Sal k 3	C1KEU0	225810599	351	LAFAAQKVLEVNALA	15	3324.1623
Russian thistle	151250	Sal k 3	C1KEU0	225810599	356	QKVLEVNALAKALAG	15	3324.1657
Russian thistle	151250	Sal k 3	C1KEU0	225810599	371	QKDEAFFSANAAALA	15	3324.1624
Russian thistle	151250	Sal k 3	C1KEU0	225810599	376	FFSANAAALASRKSS	15	3324.1636
Russian thistle	151250	Sal k 3	C1KEU0	225810599	461	EYVVKAIKEEISKVV	15	3324.1627
Russian thistle	151250	Sal k 3	C1KEU0	225810599	471	ISKVVKLQEELDIDV	15	3324.1661
Russian thistle	151250	Sal k 3	C1KEU0	225810599	496	MVEYFGEQLSGFAFT	15	3324.1639

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Russian thistle	151250	Sal k 3	C1KEUo	225810599	536	KAMTVFWSSLAQSMT	15	3324.1633
Russian thistle	151250	Sal k 3	C1KEUo	225810599	551	SRPMKGMMLTGPVTIL	15	3324.1663
Russian thistle	151250	Sal k 3	C1KEUo	225810599	561	PVTILNWSFVRNDQP	15	3324.1646
Russian thistle	151250	Sal k 3	C1KEUo	225810599	576	RHETCYQIALAIEDE	15	3324.1629
Russian thistle	151250	Sal k 3	C1KEUo	225810599	596	KAGINVIQIDEAALR	15	3324.1650
Russian thistle	151250	Sal k 3	C1KEUo	225810599	601	VIQIDEAALREGLPL	15	3324.1665
Russian thistle	151250	Sal k 3	C1KEUo	225810599	621	GFYLQWAVHSFRITN	15	3324.1625
Russian thistle	151250	Sal k 3	C1KEUo	225810599	626	WAVHSFRITNVGIQD	15	3324.1635
Russian thistle	151250	Sal k 3	C1KEUo	225810599	651	SNFNDIIHSIIDMDA	15	3324.1658
Russian thistle	151250	Sal k 3	C1KEUo	225810599	661	IDMDADVITIENSRS	15	3324.1649
Russian thistle	151250	Sal k 3	C1KEUo	225810599	666	DVITIENSRSDEKLL	15	3324.1660
Russian thistle	151250	Sal k 3	C1KEUo	225810599	711	LADRIRKMLAVLESN	15	3324.1637
Russian thistle	151250	Sal k 3	C1KEUo	225810599	716	RKMLAVLESNVLWVN	15	3324.1626
Russian thistle	151250	Sal k 3	C1KEUo	225810599	741	NEVNPALSNMVYAAK	15	3324.1656
Russian thistle	151250	Sal k 3	C1KEUo	225810599	743	VNPALSNMVYAAKPI	15	3324.1666
Russian thistle	151250	Sal k 4	C6JWHO	239916566	16	EGTNNHLTAAAILGV	15	3324.1669
Russian thistle	151250	Sal k 4	C6JWHO	239916566	71	GTKYMVIQGEAGQVI	15	3324.1668
Russian thistle	151250	Sal k 4	C6JWHO	239916566	101	QALIFGIYDEPVTGP	15	3337.0046
Rye grass	4522	Lol p 1	P14946	126385	1	MASSSSVLLVVALFA	15	3324.1133
Rye grass	4522	Lol p 1	P14946	126385	6	SVLLVVALFAVFLGS	15	3324.1132
Rye grass	4522	Lol p 1	P14946	126385	11	VALFAVFLGSAHGIA	15	3324.1134
Rye grass	4522	Lol p 1	P14946	126385	121	EPIAPYHFDLSGHAF	15	3337.0028
Rye grass	4522	Lol p 1	P14946	126385	176	KASNPNYLAAILVKYV	15	3324.1135
Rye grass	4522	Lol p 1	P14946	126385	181	NYLAILVKYVDGDGD	15	3324.1136
Rye grass	4522	Lol p 11	Q7M1X5	47605808	106	KQQGIRYANPIAFFR	15	3324.1137
Rye grass	4522	Lol p 11	Q7M1X5	47605808	111	RYANPIAFFRKEPLK	15	3324.1138
Rye grass	4522	Lol p 11	Q7M1X5	47605808	116	IAFFRKEPLKECGGI	15	3337.0029
Rye grass	4522	Lol p 2	P14947	126386	51	DGVWEIKSDKPLKGP	15	3324.1139
Rye grass	4522	Lol p 2	P14947	126386	56	IKSDKPLKGGPFNFRF	15	3324.1140
Rye grass	4522	Lol p 2	P14947	126386	76	MRNVFDDVVPADFKV	15	3337.0030
Rye grass	4522	Lol p 3	P14948	126387	11	SDAKTLVLNLIKTRP	15	3324.1142
Rye grass	4522	Lol p 3	P14948	126387	51	LWEVKSAPLTPGPMN	15	3337.0031
Rye grass	4522	Lol p 3	P14948	126387	76	NVFDEVIPTAFTVGK	15	3324.1141
Rye grass	4522	Lol p 4	Q5TIW3	55859464	21	YEGLSYRSLQPENFA	15	3324.1161
Rye grass	4522	Lol p 4	Q5TIW3	55859464	31	PENFAVVDLNMRAV	15	3324.1159
Rye grass	4522	Lol p 4	Q5TIW3	55859464	36	VVDLNMRAVLVDGK	15	3324.1160
Rye grass	4522	Lol p 4	Q5TIW3	55859464	61	QLGELYYAISKYSRT	15	3324.1146
Rye grass	4522	Lol p 4	Q5TIW3	55859464	66	YYAISKYSRTLAFPA	15	3324.1147
Rye grass	4522	Lol p 4	Q5TIW3	55859464	71	KYSRTLAFPPAGVCPT	15	3324.1164
Rye grass	4522	Lol p 4	Q5TIW3	55859464	96	GFGMLLRKYGIAAEN	15	3324.1157
Rye grass	4522	Lol p 4	Q5TIW3	55859464	101	LRKYGIAAENVIDVK	15	3324.1145
Rye grass	4522	Lol p 4	Q5TIW3	55859464	141	GGESFGIVVSWQVKL	15	3324.1153
Rye grass	4522	Lol p 4	Q5TIW3	55859464	146	GIVVSWQVKLLPVP	15	3324.1156
Rye grass	4522	Lol p 4	Q5TIW3	55859464	176	VDIINKWQLVAPQLP	15	3324.1143
Rye grass	4522	Lol p 4	Q5TIW3	55859464	191	ADLMIRIIMGPKAT	15	3324.1155
Rye grass	4522	Lol p 4	Q5TIW3	55859464	236	NEMSWIESIPFVHLG	15	3324.1151
Rye grass	4522	Lol p 4	Q5TIW3	55859464	261	NRNNTFKPFAEYKSD	15	3324.1158
Rye grass	4522	Lol p 4	Q5TIW3	55859464	266	FKPFAEYKSDYVYEP	15	3324.1148
Rye grass	4522	Lol p 4	Q5TIW3	55859464	271	EYKSDYVYEPFPPKSV	15	3324.1162
Rye grass	4522	Lol p 4	Q5TIW3	55859464	301	IMIFDPYGATISATP	15	3324.1149
Rye grass	4522	Lol p 4	Q5TIW3	55859464	321	FPHRKGVLFNQYVN	15	3324.1152
Rye grass	4522	Lol p 4	Q5TIW3	55859464	326	GVLFNQYVNYWFAP	15	3324.1144
Rye grass	4522	Lol p 4	Q5TIW3	55859464	331	IQYVNYWFAPGAGAA	15	3324.1150
Rye grass	4522	Lol p 4	Q5TIW3	55859464	351	KEIYNYMEPYVSKNP	15	3324.1154
Rye grass	4522	Lol p 4	Q5TIW3	55859464	396	GQKYFKGNFERLAIT	15	3324.1163
Rye grass	4522	Lol p 5 1	Q40237	2498582	1	MAVQKHTVALFLAVA	15	3324.1172
Rye grass	4522	Lol p 5 1	Q40237	2498582	6	HTVALFLAVALVAGP	15	3324.1166
Rye grass	4522	Lol p 5 1	Q40237	2498582	11	FLAVALVAGPAASYA	15	3324.1170
Rye grass	4522	Lol p 5 1	Q40237	2498582	71	LIEKINAGFKA AVAA	15	3324.1175
Rye grass	4522	Lol p 5 1	Q40237	2498582	76	NAGFKA AVAAAVVP	15	3324.1168
Rye grass	4522	Lol p 5 1	Q40237	2498582	96	KTFVETFGTATNKAF	15	3324.1171
Rye grass	4522	Lol p 5 1	Q40237	2498582	106	TNKAFVEGLASGYAD	15	3324.1186
Rye grass	4522	Lol p 5 1	Q40237	2498582	126	LTSKLDAAALKLAYEA	15	3324.1187
Rye grass	4522	Lol p 5 1	Q40237	2498582	131	DAALKLAYEAAQCAT	15	3324.1169
Rye grass	4522	Lol p 5 1	Q40237	2498582	146	PEAKYDAYVATLTEA	15	3324.1180
Rye grass	4522	Lol p 5 1	Q40237	2498582	151	DAYVATLTEALRVIA	15	3324.1167
Rye grass	4522	Lol p 5 1	Q40237	2498582	156	TLTEALRVIA GTLEV	15	3324.1185
Rye grass	4522	Lol p 5 1	Q40237	2498582	196	VDAAYRTAATAANAA	15	3324.1181
Rye grass	4522	Lol p 5 1	Q40237	2498582	216	FTVFENTFNNAIKVS	15	3324.1179

Supplemental Table 1. Complete list of peptides synthesized.

Organism	Taxonomy ID	Source protein	SwissProt ID	GI number	Position	Sequence	Len.	Peptide ID
Rye grass	4522	Lol p 5 1	Q40237	2498582	221	NTFNNAIKVSLGAAY	15	3324.1176
Rye grass	4522	Lol p 5 1	Q40237	2498582	226	AIKVSLSGAAAYDSYKF	15	3324.1173
Rye grass	4522	Lol p 5 1	Q40237	2498582	231	LGAAYDSYKFIPTLV	15	3324.1174
Rye grass	4522	Lol p 5 1	Q40237	2498582	236	DSYKFIPTLVAAVKQ	15	3324.1165
Rye grass	4522	Lol p 5 1	Q40237	2498582	241	IPTLVAAVKQAYAAK	15	3324.1182
Rye grass	4522	Lol p 5 1	Q40237	2498582	246	AAVKQAYAAKQATAP	15	3324.1177
Rye grass	4522	Lol p 5 1	Q40237	2498582	261	EVKYTVSETALKKAV	15	3324.1178
Rye grass	4522	Lol p 5 1	Q40237	2498582	271	LKKAVTAMSEAEKEA	15	3324.1183
Rye grass	4522	Lol p 5 1	Q40237	2498582	306	PAAAYATATPAAATA	15	3324.1184
Rye grass	4522	Lol p 5 2	Q40240	485371	1	MAVQKYTVVALFLRRG	15	3324.1195
Rye grass	4522	Lol p 5 2	Q40240	485371	141	RSLRVIAGALEVHAV	15	3324.1190
Rye grass	4522	Lol p 5 2	Q40240	485371	176	DKIDAADFKAATAAN	15	3324.1192
Rye grass	4522	Lol p 5 2	Q40240	485371	181	AFKIAATAANAAPT	15	3324.1197
Rye grass	4522	Lol p 5 2	Q40240	485371	196	DKFTVFESAFNKALN	15	3324.1191
Rye grass	4522	Lol p 5 2	Q40240	485371	241	APEVKYAVFEAALTK	15	3324.1188
Rye grass	4522	Lol p 5 2	Q40240	485371	246	YAVFEAALTKAITAM	15	3324.1194
Rye grass	4522	Lol p 5 2	Q40240	485371	251	AALTKAITAMTQAQK	15	3324.1196
Rye grass	4522	Lol p 5 2	Q40240	485371	291	LPPPLLVVQSLISLL	15	3324.1193
Rye grass	4522	Lol p 5 2	Q40240	485371	294	PLLVVQSLISLLIYY	15	3324.1189
Sweet vernal grass	29661	Ant o 1	Q7M1X6	75139986	1	IAKVPPGNITATYG	15	3324.0103
Sweet vernal grass	29661	Ant o 1	Q7M1X6	75139986	16	DKWLDAKSTWYGKPT	15	3324.0102
Sweet vernal grass	29661	Ant o 1	Q7M1X6	75139986	18	WLDKSTWYGKPTGA	15	3337.0008
Western ragweed	29715	Amb p 5	P43174	1171001	1	MNNEKNVSFEFIGST	15	3324.0097
Western ragweed	29715	Amb p 5	P43174	1171001	6	NVSFEFIGSTDEVDE	15	3324.0098
Western ragweed	29715	Amb p 5	P43174	1171001	21	IKLLPCAWAGNVCGE	15	3337.0004
Western ragweed	29715	Amb p 5	P43174	1171001	63	QKCGKMRMNVTKNTI	15	3337.0005
White oak	3513	Que a 1	B6RQS2	167472849	11	ASVIPPARLFKAFVL	15	3324.1587
White oak	3513	Que a 1	B6RQS2	167472849	16	PARLFKAFVLDSNDL	15	3324.1585
White oak	3513	Que a 1	B6RQS2	167472849	21	KAFVLDSNDLIPKVV	15	3324.1588
White oak	3513	Que a 1	B6RQS2	167472849	141	ASEVFKAVEAYLVAH	15	3324.1584
White oak	3513	Que a 1	B6RQS2	167472849	146	KAVEAYLVAHPLDYK	15	3324.1586

Supplemental Table 2. Summary of responses to allergen extracts

Allergen	Concentration (µg/ml)	Donor	Wheal (mm)	Response to extract (SFC)			Evaluation	Summary							
				IFNg	IL-5	Total		Tested	Positive	%Positive					
Alder	50	D00069	12	3407	667	4073	+	12	11	91.7					
		U00110	10	220	3	223	+								
		U00122	10	597	1860	2457	+								
		U00047	10	70	297	367	+								
		U00046	10	1323	197	1520	+								
		U00050	10	987	100	1087	+								
		U00054	10	1123	830	1953	+								
		U00064	10	200	30	230	+								
		U00075	3	227	10	237	+								
		U00039	10	33	0	33	-								
		U00032	10	997	198	1194	+								
		U00115	10	1010	0	1010	+								
Alternaria rot fungus	2	D00069	15	33	2460	2493	+	12	12	100.0					
		U00119	3	953	3370	4323	+								
		U00122	10	2573	1310	3883	+								
		U00064	7	677	2280	2957	+								
		U00102	7	1197	1580	2777	+								
		D00095	9	1157	2400	3557	+								
		U00032	8	173	203	377	+								
		U00129	3	207	3183	3390	+								
		D00003	8	1760	2913	4673	+								
		U00075	8	540	2460	3000	+								
		U00097	5	2827	593	3420	+								
		D00107	14	43	313	357	+								
		Ash	50	D00069	15	170	0				170	+	14	11	78.6
				U00089	12	600	310				910	+			
D00052	9			567	143	710	+								
U00058	3			0	0	0	-								
U00109	20			1860	1180	3040	+								
U00122	12			1473	1180	2653	+								
U00047	10			210	887	1097	+								
U00046	10			170	0	170	+								
U00102	3			7	3	10	-								
D00026	25			2177	480	2657	+								
U00115	10			107	40	147	-								
D00007	9			567	33	600	+								
D00047	20			1833	2313	4147	+								
D00027	12			763	0	763	+								
<i>A. fumigatus</i>	5			U00109	3	2853	217	3070	+	11	11	100.0			
				U00122	3	2610	2250	4860	+						
		D00045	8	1383	47	1430	+								
		U00047	3	593	30	623	+								
		U00050	3	1997	530	2527	+								
		U00129	3	720	600	1320	+								
		U00075	3	1407	57	1463	+								
		U00085	3	1260	57	1317	+								
		U00103	3	1250	63	1313	+								
		U00113	3	3393	10	3403	+								
		U00121	3	1500	353	1853	+								
		American cockroach	25	U00109	3	2853	217	3070	+				11	11	100.0
U00122	3			2610	2250	4860	+								
D00045	8			1383	47	1430	+								
U00047	3			593	30	623	+								
U00050	3			1997	530	2527	+								
U00129	3			720	600	1320	+								
U00075	3			1407	57	1463	+								
U00085	3			1260	57	1317	+								
U00103	3			1250	63	1313	+								
U00113	3			3393	10	3403	+								
U00121	3			1500	353	1853	+								
Bermuda grass	50	D00070	11	2010	97	2107	+	11	11	100.0					
		U00089	15	2450	510	2960	+								
		D00004	20	1833	547	2380	+								
		D00039	17	2020	507	2527	+								
		D00094	20	33	2100	2133	+								
		D00102	13	213	1073	1287	+								
		D00067	14	1580	23	1603	+								
		U00054	10	1457	0	1457	+								
		U00099	10	1380	603	1983	+								
		D00042	17	973	23	997	+								
		D00104	11	1620	30	1650	+								
Birch	50	U00110	20	307	207	513	+	10	10	100.0					

Supplemental Table 2. Summary of responses to allergen extracts

Allergen	Concentration (µg/ml)	Donor	Wheal (mm)	Response to extract (SFC)			Evaluation	Summary		
				IFNg	IL-5	Total		Tested	Positive	%Positive
		U00047	10	380	1840	2220	+			
		D00026	25	2603	407	3010	+			
		U00115	10	617	87	703	+			
		U00103	7	2547	1190	3737	+			
		D00073	19	680	33	713	+			
		D00067	16	2690	387	3077	+			
		D00065	19	1083	97	1180	+			
		D00094	15	350	2710	3060	+			
		U00053	10	1580	327	1907	+			
Black walnut	50	U00110	10	1410	1910	3320	+	10	10	100.0
		U00080	5	2233	2193	4427	+			
		D00094	17	793	1557	2350	+			
		U00115	5	1810	2183	3993	+			
		D00003	6	903	843	1747	+			
		U00075	8	163	2177	2340	+			
		U00092	5	2110	967	3077	+			
		U00097	6	2670	0	2670	+			
		U00072		0	1463	1463	+			
		U00137	4	1330	2197	3527	+			
Canary grass	50	D00070	21	2770	1183	3953	+	10	10	100.0
		U00089	10	1813	910	2723	+			
		U00110	20	163	67	230	+			
		U00099	20	2267	340	2607	+			
		U00106	18	677	1297	1973	+			
		D00004	35	1253	2520	3773	+			
		U00117	7	1573	53	1627	+			
		D00052	17	1670	1803	3473	+			
		U00036	20	787	487	1273	+			
		U00029	20	421	0	421	+			
Cat epithelia	50	D00069	10	2037	2353	4390	+	11	11	100.0
		U00106	12	653	2063	2717	+			
		D00004	8	785	1005	1790	+			
		U00079	8	1177	2100	3277	+			
		D00073	15	700	1113	1813	+			
		U00047	15	307	1933	2240	+			
		U00046	10	737	2620	3357	+			
		U00029	25	1380	1363	2743	+			
		U00128	10	2220	2073	4293	+			
		U00126	8	440	320	760	+			
		U00107	10	820	407	1227	+			
<i>C. herbarum</i>	5	U00079	3	1703	3917	5620	+	10	10	100.0
		U00110	3	640	2040	2680	+			
		U00122	4	2060	2640	4700	+			
		D00073	16	1297	990	2287	+			
		U00083	8	2270	53	2323	+			
		U00102	16	2207	387	2593	+			
		U00101	3	1760	1963	3723	+			
		U00128	3	2933	0	2933	+			
		U00129	3	1397	1287	2683	+			
		U00107	3	1213	263	1477	+			
Cypress	50	D00052	5	977	797	1773	+	10	8	80.0
		U00110	3	97	0	97	-			
		D00026	20	2207	1653	3860	+			
		D00102	12	250	1283	1533	+			
		U00092	3	937	240	1177	+			
		D00008	9	30	2297	2327	+			
		D00107	10	1223	1473	2697	+			
		U00075	3	230	1340	1570	+			
		U00125	3	43	10	53	-			
		U00034	3	2827	247	3073	+			
<i>D. farinae</i>	50	D00069	16	1303	30	1333	+	10	9	90.0
		U00099	10	767	270	1037	+			
		U00117	5	823	237	1060	+			
		U00110	10	207	0	207	+			
		U00093	8	817	217	1033	+			
		U00112	8	343	0	343	+			
		U00131	10	553	0	553	+			
		U00102	3	130	10	140	-			
		U00050	10	540	240	780	+			
		U00124	8	907	1640	2547	+			
<i>D. pteronyssinus</i>	50	U00117	6	2397	2883	5280	+	11	11	100.0
		U00093	10	1167	0	1167	+			

Supplemental Table 2. Summary of responses to allergen extracts

Allergen	Concentration (µg/ml)	Donor	Wheal (mm)	Response to extract (SFC)			Evaluation	Summary		
				IFNg	IL-5	Total		Tested	Positive	%Positive
		U00112	8	217	0	217	+			
		U00131	8	1283	303	1587	+			
		D00002	15	663	137	800	+			
		U00050	12	1580	357	1937	+			
		U00102	5	267	40	307	+			
		U00128	20	163	330	493	+			
		U00023	10	860	2173	3033	+			
		U00124	8	2323	2100	4423	+			
		U00108	15	1343	1917	3260	+			
Dog epithelia	50	U00079	3	283	47	330	+	10	10	100.0
		U00117	3	1843	223	2067	+			
		U00110	3	190	33	223	+			
		U00108	3	1150	400	1550	+			
		U00023	4	1460	817	2277	+			
		U00069	5	453	113	567	+			
		U00101	3	903	703	1607	+			
		U00129	3	2110	0	2110	+			
		D00107	10	297	1447	1743	+			
		U00075	3	1453	390	1843	+			
English plantain	50	D00069	10	2547	2513	5060	+	10	8	80.0
		D00004	9	1650	1230	2880	+			
		U00110	8	60	13	73	-			
		D00073	21	240	20	260	+			
		D00094	19	1167	1650	2817	+			
		U00054	10	987	743	1730	+			
		U00075	3	657	530	1187	+			
		U00069	5	83	50	133	-			
		U00102	8	380	243	623	+			
		U00072	5	1467	733	2200	+			
Giant ragweed	50	D00002	13	1760	120	1880	+	10	10	100.0
		D00094	20	173	793	967	+			
		U00047	10	647	1297	1943	+			
		D00095	12	1407	160	1567	+			
		D00007	8	1160	43	1203	+			
		D00100	10	1060	457	1517	+			
		D00045	14	1870	130	2000	+			
		D00084	10	843	1050	1893	+			
		D00096	13	287	0	287	+			
		U00054	8	687	17	703	+			
Juniper	20	D00052	8	37	0	37	-	10	8	80.0
		D00060	9	1530	2413	3943	+			
		U00032	10	153	123	277	+			
		D00073	21	0	0	0	-			
		U00099	8	190	2147	2337	+			
		D00027	6	153	687	840	+			
		D00068	15	540	2717	3257	+			
		U00034	3	637	1450	2087	+			
		D00084	13	183	2227	2410	+			
		U00098	3	2023	330	2353	+			
Kentucky blue grass	50	D00070	27	1543	683	2227	+	12	12	100.0
		U00089	12	2750	2060	4810	+			
		U00106	10	2215	2927	5142	+			
		D00004	22	2417	1813	4230	+			
		U00036	10	1553	2097	3650	+			
		U00102	20	773	2290	3063	+			
		U00032	25	1730	1813	3543	+			
		D00054	10	3133	2353	5487	+			
		U00115	8	1490	713	2203	+			
		U00101	8	1083	2297	3380	+			
		U00110	20	800	543	1343	+			
		U00034	10	423	1837	2260	+			
Mugwort	50	U00122	12	850	523	1373	+	10	10	100.0
		D00061	17	2283	1503	3787	+			
		D00095	8	843	423	1267	+			
		D00007	17	1887	1277	3163	+			
		D00041	12	2670	1603	4273	+			
		D00042	11	933	230	1163	+			
		D00047	16	1213	1273	2487	+			
		U00103	8	533	53	587	+			
		U00118	6	2083	1410	3493	+			
		D00104	17	160	40	200	+			
White Oak	25	D00069	13	483	1873	2357	+	12	8	66.7

Supplemental Table 2. Summary of responses to allergen extracts

Allergen	Concentration (µg/ml)	Donor	Wheal (mm)	Response to extract (SFC)			Evaluation	Summary		
				IFNg	IL-5	Total		Tested	Positive	%Positive
		D00004	13	540	587	1127	+			
		D00052	11	110	10	120	-			
		D00026	21	760	340	1100	+			
		D00078	15	153	320	473	+			
		U00047	10	0	2933	2933	+			
		U00103	8	40	0	40	-			
		U00115	8	23	0	23	-			
		D00094	19	23	3583	3607	+			
		U00110	8	77	47	123	-			
		U00072	5	1113	1390	2503	+			
		D00067	11	1273	1183	2457	+			
Orchard grass	50	D00070	29	2107	350	2457	+	11	11	100.0
		U00089	5	2570	2253	4823	+			
		U00110	20	357	930	1287	+			
		U00099	10	37	2433	2470	+			
		U00106	12	510	463	973	+			
		D00004	25	1690	2263	3953	+			
		U00036	10	1310	280	1590	+			
		U00058	8	760	687	1447	+			
		D00042	18	1260	1160	2420	+			
		U00102	20	957	1543	2500	+			
		U00101	12	1050	1020	2070	+			
Date Palm	50	D00069	9	1927	2517	4443	+	10	9	90.0
		U00075	3	873	1347	2220	+			
		U00046	10	2437	1597	4033	+			
		U00050	10	1040	1863	2903	+			
		U00054	10	1010	940	1950	+			
		D00045	24	2223	110	2333	+			
		U00110	10	43	20	63	-			
		U00036	8	1127	23	1150	+			
		D00035	5	2223	100	2323	+			
		D00084	13	1963	33	1997	+			
<i>P. chrysogenum</i>	5	D00052	11	570	890	1460	+	10	10	100.0
		U00036	3	2363	237	2600	+			
		U00109	3	837	633	1470	+			
		U00122	3	3870	2423	6293	+			
		U00050	3	460	973	1433	+			
		U00047	3	1570	263	1833	+			
		U00118	6	1710	1363	3073	+			
		U00129	3	2183	1330	3513	+			
		U00132	3	2167	837	3003	+			
		U00137	3	1587	377	1963	+			
Russian thistle	50	U00089	12	1610	1750	3360	+	10	9	90.0
		D00060	11	2170	1803	3973	+			
		U00106	10	2907	2493	5400	+			
		U00109	20	1310	3383	4693	+			
		U00047	10	220	1153	1373	+			
		D00047	24	1720	2623	4343	+			
		D00079	19	1480	1280	2760	+			
		U00054	10	1490	927	2417	+			
		U00110	10	13	3	17	-			
		U00118	14	1563	2823	4387	+			
Rye grass	50	D00070	25	2580	1523	4103	+	11	11	100.0
		U00089	12	1153	410	1563	+			
		U00110	18	183	67	250	+			
		U00099	20	0	2307	2307	+			
		U00106	15	618	1786	2404	+			
		D00004	16	1107	1607	2713	+			
		U00117	4	253	87	340	+			
		U00036	10	363	153	517	+			
		U00054	15	943	403	1347	+			
		U00125	25	403	1007	1410	+			
		D00041	15	2060	423	2483	+			
Sweet vernal grass	50	U00099	10	1943	2960	4903	+	15	14	93.3
		U00106	12	2443	1570	4013	+			
		D00004	26	1907	830	2737	+			
		U00079	7	30	23	53	-			
		D00052	19	1543	1673	3217	+			
		U00036	15	1313	1177	2490	+			
		U00058	12	1087	1143	2230	+			
		U00110	13	103	110	213	+			
		U00102	10	143	407	550	+			

Supplemental Table 2. Summary of responses to allergen extracts

Allergen	Concentration (µg/ml)	Donor	Wheal (mm)	Response to extract (SFC)			Evaluation	Summary		
				IFNγ	IL-5	Total		Tested	Positive	%Positive
		U00050	10	1397	860	2257	+			
		U00054	15	273	53	327	+			
		U00016	10	2413	1483	3897	+			
		D00042	14	2090	1943	4033	+			
		U00101	12	1740	63	1803	+			
		U00075	20	1787	753	2540	+			
Western ragweed	50	D00070	23	1820	1950	3770	+	10	10	100.0
		D00094	24	83	707	790	+			
		D00007	11	1137	493	1630	+			
		D00079	19	320	713	1033	+			
		D00102	19	413	1740	2153	+			
		D00100	16	1690	443	2133	+			
		U00092	5	267	2020	2287	+			
		D00045	10	563	380	943	+			
		D00084	20	83	80	163	+			
		U00098	7	1707	123	1830	+			
Total								304	286	94.1
Criteria of positivity: Total SFC ≥150									Average:	94.3

Supplemental Table 3. Positive donor/peptide responses

Category	Organism	Antigen	Position	Sequence	Peptide ID	Region ID	Donor	Response (SFC/10 ⁶)				
								IFNg	IL-5	Total		
Fungi	Alternaria rot fungus	Alt a 1	6	IASLFAAAGLAAAAP	3324.0015	1.01	U00129		1830	1830		
		Alt a 1	6	IASLFAAAGLAAAAP	3324.0015	1.01	U00064		93	93		
		Alt a 1	11	AAAGLAAAAPLESRQ	3324.0017	1.01	D00003		87	87		
		Alt a 1	11	AAAGLAAAAPLESRQ	3324.0017	1.01	D00095		1298	1298		
		Alt a 1	11	AAAGLAAAAPLESRQ	3324.0017	1.01	U00064		2357	2357		
		Alt a 1	111	KVSDDDITYVATATLP	3324.0013	1.02	U00122	197	197	197		
		Alt a 1	111	KVSDDDITYVATATLP	3324.0013	1.02	D00069		53	53		
		Alt a 1	111	KVSDDDITYVATATLP	3324.0013	1.02	D00095		1468	1468		
		Alt a 1	111	KVSDDDITYVATATLP	3324.0013	1.02	U00064		123	123		
		Alt a 1	111	KVSDDDITYVATATLP	3324.0013	1.02	U00075		1310	1310		
		Alt a 1	111	KVSDDDITYVATATLP	3324.0013	1.02	U00097		712	712		
		Alt a 1	116	ITYVATATLPNYCRA	3324.0014	1.02	D00095		2563	2563		
		Alt a 1	116	ITYVATATLPNYCRA	3324.0014	1.02	D00069		327	327		
		Alt a 1	116	ITYVATATLPNYCRA	3324.0014	1.02	D00107	157	1123	1280		
		Alt a 1	116	ITYVATATLPNYCRA	3324.0014	1.02	U00064		797	797		
		Alt a 1	116	ITYVATATLPNYCRA	3324.0014	1.02	U00075		1405	1405		
		Alt a 1	116	ITYVATATLPNYCRA	3324.0014	1.02	U00097		882	882		
		Alt a 1	116	ITYVATATLPNYCRA	3324.0014	1.02	U00122	133	133	133		
		Alt a 1	141	QGVADAYITLVTLPK	3324.0011	1.03	D00003		623	623		
		Alt a 1	141	QGVADAYITLVTLPK	3324.0011	1.03	D00095	397	1768	2165		
		Alt a 1	141	QGVADAYITLVTLPK	3324.0011	1.03	U00064		1777	1777		
		Alt a 1	141	QGVADAYITLVTLPK	3324.0011	1.03	U00129		670	670		
		Alt a 1	141	QGVADAYITLVTLPK	3324.0011	1.03	D00107		298	298		
		Alt a 1	143	VADAYITLVTLPKSS	3324.0016	1.03	D00107		533	533		
		Alt a 1	143	VADAYITLVTLPKSS	3324.0016	1.03	D00095		1728	1728		
		Alt a 1	143	VADAYITLVTLPKSS	3324.0016	1.03	D00003		353	353		
		Alt a 1	143	VADAYITLVTLPKSS	3324.0016	1.03	U00064		1323	1323		
		Alt a 12	1	MSTSELATSYAALIL	3324.0036	1.04	U00075	370	1513	1883		
		Alt a 12	6	LATSYYAALILADDGV	3324.0035	1.04	U00075	540	703	1243		
		Alt a 12	26	KLQSLIKAAKIEVE	3324.0037	1.05	U00075		80	80		
		Alt a 13	11	QKLVLFVAVKGTATST	3324.0044	1.06	U00075		70	70		
		Alt a 13	166	GQQYLAWLNEKFKRS	3324.0045	1.07	U00075		63	63		
		Alt a 5	51	INELIASGSEKLASV	3324.0065	1.08	U00075		337	337		
		Alt a 5	51	INELIASGSEKLASV	3324.0065	1.08	U00102		3113	3113		
		Alt a 6	1	MTITKIHARSVYDSR	3324.0075	1.09	U00064		47	47		
		Alt a 6	106	LGANAILGVSMIAIK	3324.0069	1.10	D00095		418	418		
		Alt a 6	116	MAIAKAAAIAEKGVPL	3324.0074	1.11	U00129		63	63		
		Alt a 6	161	GGRLAFQEFMIVPCE	3324.0073	1.12	D00069		328	328		
		Alt a 6	161	GGRLAFQEFMIVPCE	3324.0073	1.12	D00107	807	103	910		
		Alt a 6	186	GAEVYQKLLAKAKT	3324.0072	1.13	D00069		173	173		
		Alt a 6	271	KSKWLTVEQLAEMYK	3324.0068	1.14	U00064		47	47		
		Alt a 6	306	EAWSYFFKTYDQIV	3324.0067	1.15	U00129		90	90		
		Alt a 6	341	CNALLLKVNQIGTIT	3324.0071	1.16	U00129		1223	1223		
		Alt a 6	366	GAGWGVMSVSHRSGET	3324.0078	1.17	D00003		63	63		
		Alt a 6	406	ERLAKLNQILRIEEE	3324.0076	1.18	U00075	1080	1080	1080		
		Alt a 7	141	IYVPLGYKTAFSMLA	3324.0079	1.19	U00122	103	103	103		
		Alt a 7	190	AQGKAFYEAVAKAHQ	3324.0080	1.20	D00003		290	290		
		Alt a 7	190	AQGKAFYEAVAKAHQ	3324.0080	1.20	U00122	107	107	107		
		Alt a 7	36	LFQVAETLPQEVLDK	3324.0084	1.21	D00003		170	170		
		Alt a 7	6	AIVYYSMYGHKMA	3324.0085	1.22	U00075		137	137		
		Alt a 7	6	AIVYYSMYGHKMA	3324.0085	1.22	D00003		590	590		
		Alt a 8	236	ELKGAYVYFASDASS	3324.0088	1.23	U00075		247	247		
		Alt a 8	216	QDIQKLWHSIMPMPGR	3324.0092	1.24	D00003		190	190		
		Alt a 8	151	TGSLVITSSMSGHIA	3324.0093	1.25	U00097		378	378		
		Aspergillus fumigatus	Asp f 1	146	ARVIYTPNKNVFCGI	3324.0124	1.26	U00109	318	87	405	
			Asp f 12	391	KNIVKKTLELFNEIA	3324.0175	1.27	U00109	83	83	83	
			Asp f 13	256	LGGGYSYAFNNAVEN	3324.0190	1.28	U00122	442	442	442	
			Asp f 13	231	LDGFNWA VNDIVSKG	3324.0192	1.29	U00122	507	277	783	
			Asp f 17	116	ADSLAKAISAKVPES	3324.0209	1.30	U00050	477	477	477	
			Asp f 17	136	AQLSAGITAAIQKGI	3324.0210	1.31	U00121	171	171	171	
			Asp f 17	91	SKDKFVAANAGGTV	3324.0212	1.32	U00113	157	157	157	
			Asp f 17	91	SKDKFVAANAGGTV	3324.0212	1.32	U00109	657	657	657	
			Asp f 17	101	AGGTVEYEDLKAQYTA	3324.0213	1.33	U00113	200	200	200	
			Asp f 22	161	GGRLAFQEFMIVPDS	3324.0252	1.34	U00050	380	380	380	
			Asp f 27	106	TNGSQFFITTVVTSW	3324.0262	1.35	U00109	87	87	87	
			Asp f 4	41	DTVYATINGVLVSWI	3324.0288	1.36	U00109	112	112	112	
			Cladosporium herbarum	Cla h 10	341	SKVQFDRIMEYIYAG	3324.0560	1.37	U00110		113	113
				Cla h 5	1	MKYLA AFLLLGLAGN	3324.0573	1.38	U00107		43	43
				Cla h 5	6	AFLLLGLAGNSSPSA	3324.0576	1.38	U00107	103	103	103
		Cla h 5		6	AFLLLGLAGNSSPSA	3324.0576	1.38	U00122		143	143	
		Cla h 6		111	ILGVSMVAKAAAEE	3324.0586	1.39	U00128	177	177	177	
		Cla h 6		126	KRVPLYAHISDLST	3324.0590	1.40	U00129		67	67	
		Cla h 6		161	GGRLAFQEFMIVPDS	3324.0588	1.41	U00101		130	130	
		Cla h 6		161	GGRLAFQEFMIVPDS	3324.0588	1.41	U00110	833	157	990	
		Cla h 6		161	GGRLAFQEFMIVPDS	3324.0588	1.41	U00128		962	962	
		Cla h 6		166	FQEFMIVPDSGAPSFT	3324.0581	1.41	U00128		277	277	
		Cla h 6		186	GAEVYQKLLKSLTKKR	3324.0585	1.42	U00128	343	343	343	
		Cla h 6		281	ADQYKQLAAYPIVS	3324.0593	1.43	U00110		53	53	
		Cla h 6		306	EAWSYFYKTSGSDFO	3324.0580	1.44	D00073	70	70	70	
		Cla h 7		1	MAPKIAIFYSTWGH	3324.0597	1.45	U00128	112	112	112	
		Cla h 7		131	AMSTLSHHGHYVPL	3327.0019	1.46	U00128	117	117	117	
		Cla h 8		46	GAAVAITYASRAQGA	3324.0600	1.47	D00073	150	150	150	
		Cla h 8		101	QIDAFIANAGATADS	3324.0601	1.48	D00073	230	230	230	
		Cla h 8		101	QIDAFIANAGATADS	3324.0601	1.48	U00107	87	87	87	
		Cla h 8		151	GTGSLVITASMSGHI	3324.0603	1.49	U00079		420	420	
		Cla h 8		151	GTGSLVITASMSGHI	3324.0603	1.49	U00107		50	50	
		Cla h 8	181	GCIHMARSLANEWRD	3324.0602	1.50	U00079		130	130		

Supplemental Table 3. Positive donor/peptide responses

Category	Organism	Antigen	Position	Sequence	Peptide ID	Region ID	Donor	Response (SFC/10 ⁶)		
								IFNg	IL-5	Total
Penicillium chrysogenum		Cl a h 8	181	GCIHMARSLANEWRD	3324.0602	1.50	U00107	500	187	687
		Cl a h 8	236	KELKGAYVYFASDAS	3324.0598	1.51	U00079		3540	3540
		Cl a h 8	236	KELKGAYVYFASDAS	3324.0598	1.51	U00128	527		527
		Cl a h 8	241	AYVYFASDASTYTTG	3324.0599	1.51	U00079		2003	2003
		Pen ch 13	6	VLATSLATLAVVDAG	3324.1300	1.52	U00050	170		170
		Pen ch 13	36	YIVVMNDVSTAFAFS	3324.1311	1.53	U00050	140		140
		Pen ch 13	101	PAVKYIEPDMIVNAT	3324.1304	1.54	U00050	263		263
		Pen ch 13	101	PAVKYIEPDMIVNAT	3324.1304	1.54	U00137	413		413
		Pen ch 13	111	IVNATANVQSNVPS	3324.1306	1.55	U00137	353		353
		Pen ch 13	201	YGVAKKATLVAVKVL	3324.1305	1.56	U00137	320		320
		Pen ch 13	266	NVVKSGIFLSVAAGN	3324.1299	1.57	U00050	173		173
		Pen ch 13	266	NVVKSGIFLSVAAGN	3324.1299	1.57	U00137	400		400
		Pen ch 13	271	GIFLSVAAGNEAENA	3324.1303	1.57	U00050	213		213
		Pen ch 13	271	GIFLSVAAGNEAENA	3324.1303	1.57	U00137	1250		1250
		Pen ch 13	346	APHVAGVAAYLMALE	3324.1296	1.58	U00137	333		333
		Pen ch 13	371	IVQLATSSISRAPSG	3324.1302	1.59	U00137	310		310
		Pen ch 18	1	MKGFLSLTLPLVA	3324.1314	1.60	U00109	193		193
		Pen ch 18	26	NDAAPILSSMTSKDI	3324.1332	1.61	U00047		200	200
		Pen ch 18	96	TFHIIAGSLGAGHF	3324.1323	1.62	U00047		240	240
		Pen ch 18	226	KFGVAKKANVYAVKV	3324.1330	1.63	U00047		360	360
Pen ch 18	226	KFGVAKKANVYAVKV	3324.1330	1.63	U00122		247	247		
Pen ch 18	291	LDLAVNAAVDAGIHF	3324.1331	1.64	U00047		280	280		
Pen ch 18	291	LDLAVNAAVDAGIHF	3324.1331	1.64	U00109	1237	427	1663		
Pen ch 18	291	LDLAVNAAVDAGIHF	3324.1331	1.64	U00122		537	537		
Pen ch 18	301	AGIHFAVAAGNDNAD	3324.1324	1.65	U00109	207		207		
Pen ch 18	381	HIAGLLAYVSLAPA	3324.1313	1.66	U00047		250	250		
Pen ch 18	411	KAALISVATEGLTD	3324.1326	1.67	U00047		320	320		
Pen ch 18	476	AFHKELGAIYSEIKD	3324.1328	1.68	U00109	343		343		
Pen ch 18	176	VDAYVIDTGANVKHV	3324.1327	1.69	U00132	1117		1117		
Indoor allergens	American cockroach	Per a 3	151	YGSIFHFYRLLVGHV	3324.1394	2.01	D00054	160		160
		Per a 3	191	FYQLWKRIDHIVQKY	3324.1404	2.02	D00054	350		350
	Cat	Per a 3	446	YTPNMYFKDVIHFHK	3324.1415	2.03	D00054	180		180
		Fel d 1 1	41	DEYVEQVAQYKALPV	3324.1049	2.15	D00073		120	120
		Fel d 1 1	41	DEYVEQVAQYKALPV	3324.1049	2.15	U00046		270	270
		Fel d 1 1	46	QVAQYKALPVVLENA	3324.1051	2.15	U00046		2622	2622
		Fel d 1 1	46	QVAQYKALPVVLENA	3324.1051	2.15	U00079		3323	3323
		Fel d 1 1	51	KALPVVLENARILKN	3324.1048	2.15	U00046		660	660
		Fel d 1 1	78	NALSVLDKIYTSPLC	3324.1050	2.16	D00073	587	980	1567
		Fel d 1 1	78	NALSVLDKIYTSPLC	3324.1050	2.16	U00029	823	213	1037
		Fel d 1 1	78	NALSVLDKIYTSPLC	3324.1050	2.16	U00079		850	850
		Fel d 1 2	21	AETCPIFYDVFFAVA	3324.1056	2.17	D00073	1477	997	2473
		Fel d 1 2	21	AETCPIFYDVFFAVA	3324.1056	2.17	D00069		503	503
		Fel d 1 2	21	AETCPIFYDVFFAVA	3324.1056	2.17	U00046		1797	1797
		Fel d 1 2	21	AETCPIFYDVFFAVA	3324.1056	2.17	U00106		557	557
		Fel d 1 2	21	AETCPIFYDVFFAVA	3324.1056	2.17	U00128	570		570
		Fel d 1 2	26	IFYDVFFAVANGNEL	3324.1052	2.17	U00079		903	903
	Fel d 1 2	26	IFYDVFFAVANGNEL	3324.1052	2.17	U00128	115		115	
	Fel d 1 2	26	IFYDVFFAVANGNEL	3324.1052	2.17	U00106		1337	1337	
	Fel d 1 2	26	IFYDVFFAVANGNEL	3324.1052	2.17	D00069		237	237	
	Fel d 1 2	26	IFYDVFFAVANGNEL	3324.1052	2.17	U00046		1530	1530	
	Fel d 1 2	36	NGNELLLDLSLTKVN	3324.1055	2.18	U00106		100	100	
	Fel d 1 2	36	NGNELLLDLSLTKVN	3324.1055	2.18	D00073	1187	1550	2737	
	Fel d 1 2	66	YVENGLISRVLDGLV	3324.1057	2.19	U00079		183	183	
	Fel d 4	56	VFVEHIKALDNSSLS	3324.1090	2.20	U00029		58	58	
	Fel d 4	96	YTVVYDGYNVFSIVE	3324.1100	2.21	U00029		270	270	
	Fel d 4	116	YILLHLLNFDKTRPF	3324.1093	2.22	U00029		73	73	
	Dog	Can f 3	156	QLFLGKLYEIAARRH	3324.0499	2.23	U00117	77		77
		Can f 3	176	PELLYYAQYQKGVFA	3324.0508	2.24	U00117	53		53
		Can f 3	421	KLGEYGFQNALLVRY	3324.0498	2.25	U00117	87		87
		Can f 3	476	FLSVLNRCLVLEHEK	3324.0500	2.26	U00117	77		77
		Can f 3	531	FTFHADLCTLPEAEK	3324.0509	2.27	U00117	60		60
		Der f 1	46	ARKNFLES�KYVEAN	3324.0668	2.28	U00117	67		67
		Der f 1	86	FEQLKTQFDLNAETS	3324.0682	2.29	U00117	70		70
	D. farinae	Der f 1	131	GSCWAFSGVAATESA	3324.0670	2.30	U00050	297	542	838
		Der f 1	131	GSCWAFSGVAATESA	3324.0670	2.30	U00117	470		470
		Der f 1	136	FSGVAATESAYLAYR	3324.0666	2.30	U00117	610		610
		Der f 1	136	FSGVAATESAYLAYR	3324.0666	2.30	U00050	343	77	420
		Der f 1	141	ATESAYLAYRNTSLD	3324.0674	2.30	U00050	217		217
		Der f 1	141	ATESAYLAYRNTSLD	3324.0674	2.30	U00117	80		80
		Der f 10	106	LKIATAKLEESQSA	3324.0689	2.31	D00069	67		67
		Der f 10	191	VELEELRVDVGGNNLK	3324.0690	2.32	D00069	70		70
		Der f 10	221	YEQQIRIMTAKLKEA	3324.0687	2.33	D00069	60		60
		Der f 11	311	ELRVKIAELQLQHE	3324.0715	2.34	U00131	433		433
		Der f 13	6	GKYKLEKSEKDFEFL	3324.0727	2.35	U00124		240	240
		Der f 13	26	GFMVKTAAKTLKPTF	3324.0725	2.36	U00124		2600	2600
		Der f 13	46	NDQYIFRSLSTFKNT	3324.0724	2.37	U00124		487	487
Der f 13		51	FRSLSTFKNTEAKFK	3324.0726	2.37	U00124		570	570	
Der f 14		196	VRPFKMHGNSDIKLM	3324.0739	2.38	U00050	647		647	
Der f 16		11	IPIGHTFFFIWRIKQ	3324.0772	2.39	U00099	160		160	
Der f 16		216	FKLSVILEDGKEVE	3324.0767	2.40	U00099	177		177	
Der f 16	236	EYDAFNKALSŁDKKD	3324.0775	2.41	U00099	230		230		
Der f 16	291	ISFVKNGPLSRADLD	3324.0776	2.42	U00099	183		183		
Der f 16	366	FKSLFESWQMSQEK	3324.0763	2.43	U00099	230		230		
Der f 16	381	ITSARLFRVSRNGIF	3324.0764	2.44	U00099	223		223		
Der f 16	416	VMDKIYVWIGNQFAE	3324.0766	2.45	U00099	160		160		
Der f 16	451	SGRKFQPNQIHKLQ	3324.0765	2.46	U00093	1560		1560		
Der f 18	126	TFVVSTVDLMTRYGF	3324.0790	2.47	D00069	63		63		

Supplemental Table 3. Positive donor/peptide responses

Category	Organism	Antigen	Position	Sequence	Peptide ID	Region ID	Donor	Response (SFC/10 ⁶)			
								IFNg	IL-5	Total	
D. pteronyssinus		Der f 18	171	HTSFVMGVTLPATIA	3324.0789	2.48	D00069	143		143	
		Der f 2	121	VVVTVKLGIDNGVLA	3337.0026	2.49	D00069	63		63	
		Der p 1	11	LALSAVYARPSSIKT	3324.0828	2.50	U00050	267	77	343	
		Der p 1	31	KAFNKSYATFEDEEA	3324.0834	2.51	U00050	1563	703	2267	
		Der p 1	46	ARKNFLESVKYVQSN	3324.0839	2.52	U00108		487	487	
		Der p 1	51	LESVKYVQSNGGAIN	3324.0838	2.53	U00117		467	467	
		Der p 1	61	GGAINHLSDLSDLEF	3324.0842	2.54	U00050	170	603	773	
		Der p 1	111	EIDLRQMRTVTPIRM	3324.0836	2.55	U00117	120	613	733	
		Der p 1	131	SCWAFSGVAATESAY	3324.0832	2.56	U00050	843	460	1303	
		Der p 1	131	SCWAFSGVAATESAY	3324.0832	2.56	U00117	233	773	1007	
		Der p 1	136	SGVAATESAYLAYRN	3324.0829	2.56	U00117	340	347	687	
		Der p 1	136	SGVAATESAYLAYRN	3324.0829	2.56	U00050	237	167	403	
		Der p 1	176	RGIEYIQHNGVVQES	3324.0831	2.57	U00117		567	567	
		Der p 1	176	RGIEYIQHNGVVQES	3324.0831	2.57	U00050	220	103	323	
		Der p 1	226	REALAQTHSAIAVII	3324.0840	2.58	U00050	1407	477	1883	
		Der p 1	226	REALAQTHSAIAVII	3324.0840	2.58	U00117		900	900	
		Der p 1	231	QTHSAIAVIIKIDL	3324.0835	2.58	U00117		317	317	
		Der p 1	296	DNGYGYFAANIDLMM	3324.0827	2.59	U00117		53	53	
		Der p 14	96	FAFGYFNGRILGVCP	3324.0914	2.60	U00093	133		133	
		Der p 14	476	NAMDEIHKSTDAEPA	3324.0918	2.61	U00117	260		260	
		Der p 14	746	TGLPLMYKFGDNLVV	3324.0922	2.62	U00131	247		247	
		Der p 14	1346	NGKHLHSLIDPSTLS	3324.0894	2.63	U00102	460		460	
		Der p 2	101	QQYDIKYTWNVPKIA	3324.0940	2.64	U00117		1333	1333	
		Der p 3	16	TLANPILPASP NATI	3324.0969	2.65	U00108		167	167	
		Der p 3	61	EYWILTAAHCVAGQT	3324.0966	2.66	U00108		203	203	
		Der p 3	81	IRYNSLKHSLGGKEI	3324.0968	2.67	U00108		137	137	
		Der p 3	91	GGEKISVAKIFAHEK	3324.0964	2.68	U00108		137	137	
		Der p 3	111	IDNDIALIKLKSPMK	3324.0967	2.69	U00108		187	187	
		Der p 3	166	SELRRVDIAVVS RKE	3324.0960	2.70	U00108		120	120	
		Der p 4	46	FDLFLMERIHEQIKK	3324.0998	2.71	U00108		143	143	
		Der p 4	61	GELALFYLQEQINHF	3324.0997	2.72	U00108		113	113	
		Der p 4	86	NKAGVRIYVDIVLNH	3324.0981	2.73	U00108	93	2017	2110	
		Der p 4	86	NKAGVRIYVDIVLNH	3324.0981	2.73	U00128		1260	1260	
		Der p 4	91	RIYVDIVLNHMTGAQ	3324.0988	2.73	U00108		117	117	
		Der p 4	96	IVLNHMTGAQSGKGT	3324.0987	2.73	U00117		507	507	
		Der p 4	201	PDDLRSIYRLHNLN	3324.0979	2.74	U00108		177	177	
		Der p 4	206	SIYSRLHNLNKEFFP	3324.0989	2.74	U00108		117	117	
		Der p 4	251	IEFRFYKEITNVFRG	3324.0976	2.75	U00108		153	153	
		Der p 4	251	IEFRFYKEITNVFRG	3324.0976	2.75	U00117		610	610	
		Der p 4	286	DALVMIDSHDLRVGH	3324.0992	2.76	U00128		290	290	
		Der p 4	311	FEGRLLKAATAFMLA	3324.0973	2.77	U00108		113	113	
		Der p 4	311	FEGRLLKAATAFMLA	3324.0973	2.77	U00117		953	953	
		Der p 4	316	LKAATAFMLAWNYGV	3324.0972	2.77	U00117		757	757	
		Der p 4	321	AFMLAWNYGVPRVMS	3324.0977	2.77	U00117		1413	1413	
		Der p 4	321	AFMLAWNYGVPRVMS	3324.0977	2.77	U00108		157	157	
		Der p 4	331	PRVMSSYFWNQIHK	3324.0991	2.78	U00117		152	152	
		Der p 4	381	EHRWREIYNMVKFRM	3324.0986	2.79	U00128		300	300	
		Der p 4	381	EHRWREIYNMVKFRM	3324.0986	2.79	U00093	1007		1007	
		Der p 4	381	EHRWREIYNMVKFRM	3324.0986	2.79	U00108		80	80	
		Der p 4	381	EHRWREIYNMVKFRM	3324.0986	2.79	U00117		402	402	
		Der p 4	386	EIYNMVKFRMIAGQE	3324.0978	2.79	U00108		167	167	
		Der p 4	386	EIYNMVKFRMIAGQE	3324.0978	2.79	U00117		1100	1100	
		Der p 4	386	EIYNMVKFRMIAGQE	3324.0978	2.79	U00093	667		667	
		Der p 4	391	VKFRMIAGQEPVHNW	3324.0993	2.79	U00117		92	92	
		Der p 4	411	YQIAFSRGNRAFAIA	3324.0980	2.80	U00108		177	177	
		Der p 4	411	YQIAFSRGNRAFAIA	3324.0980	2.80	U00117		380	380	
		Der p 4	416	SRGNRAFIAINLQKN	3324.0974	2.80	U00117		940	940	
		Der p 4	476	YVGHDEFDAFVAYHI	3324.0975	2.81	U00117		973	973	
		Der p 4	481	EFDAFVAYHIGARIV	3324.0970	2.81	U00108		123	123	
		Der p 4	481	EFDAFVAYHIGARIV	3324.0970	2.81	U00117		763	763	
		Der p 4	482	FDAFVAYHIGARIVS	3324.0971	2.81	U00108		187	187	
		Der p 5	111	RKDLLDFEQYNLEMA	3324.1001	2.82	U00108		117	117	
		Der p 9	181	TLPTLQIASVTKMS	3324.1036	2.83	U00108		120	120	
		Der p 9	256	TIYSNVANLRNWIIS	3324.1040	2.84	U00108		297	297	
		Der p 9	259	SNVANLRNWHISNTG	3324.1043	2.84	U00108		177	177	
	Trees	Alder	Aln g 1	11	PSVIPAARLFKAFIL	3324.0004	3.01	D00069	683		683
			Aln g 1	16	AARLFKAFILDGDKL	3324.0003	3.01	U00110	800	553	1353
			Aln g 1	111	GGSLKISNKFHTKG	3324.0007	3.02	U00032	887		887
			Aln g 1	111	GGSLKISNKFHTKG	3324.0007	3.02	U00110	357		357
Aln g 1			141	AVGLLKAVESYLLAH	3324.0001	3.03	D00069	597		597	
Birch			Bet v 1	6	YETETTSVIPAAARLF	3324.0351	3.04	D00094		403	403
			Bet v 1	11	TSVIPAAARLFKAFFL	3324.0349	3.04	D00094		427	427
			Bet v 1	76	DHTNFKYSYSVIEGG	3324.0350	3.05	D00094		413	413
			Bet v 1	96	LEKISNEIKIVATPD	3324.0353	3.06	D00067	92		92
			Bet v 1	96	LEKISNEIKIVATPD	3324.0353	3.06	D00094		370	370
		Bet v 1	111	GGSLKISNKYHTKG	3324.0352	3.07	D00094		280	280	
		Bet v 1	111	GGSLKISNKYHTKG	3324.0352	3.07	D00067	612		612	
		Bet v 1	111	GGSLKISNKYHTKG	3324.0352	3.07	D00073	240		240	
		Bet v 1	146	RAVESYLLAHS DAYN	3324.0348	3.08	D00094		293	293	
		Bet v 2	31	DGSVWAQSSFPQFK	3324.0355	3.09	D00094		1953	1953	
Bet v 2		66	GLHLGGIKYMIQGE	3324.0356	3.10	D00094		440	440		
Bet v 2		71	GIKYMIQGEAGAVI	3324.0354	3.10	D00094		350	350		
Bet v 3		61	LSRALNLLGLETDLS	3324.0364	3.11	D00094		167	167		
Bet v 6		71	VKAFKQVDVVISTVG	3324.0384	3.12	U00053	1007		1007		
Bet v 6		206	RTLNKIVYIKPAKNI	3324.0387	3.13	U00053	580		580		
Bet v 6	206	RTLNKIVYIKPAKNI	3324.0387	3.13	U00103	140		140			
Bet v 6	211	IVYIKPAKNIYSFNE	3324.0386	3.13	U00103	227		227			

Supplemental Table 3. Positive donor/peptide responses

Category	Organism	Antigen	Position	Sequence	Peptide ID	Region ID	Donor	Response (SFC/10 ⁶)		
								IFNg	IL-5	Total
Rye grass	Dac g 4	1	DIYNYMEPYVSKVDP	3324.0663	4.09	U00036	73		73	
	Dac g 4	1	DIYNYMEPYVSKVDP	3324.0663	4.09	U00089		302	302	
	Dac g 4	1	DIYNYMEPYVSKVDP	3324.0663	4.09	U00102		107	107	
	Lol p 1	1	MASSSSVLLVVALFA	3324.1133	4.10	U00125	53		53	
	Lol p 1	11	VALFAVFLGSAHGIA	3324.1134	4.11	U00099		208	208	
	Lol p 1	121	EPIAPYHFDLSGHAF	3337.0028	4.12	U00106	157	97	253	
	Lol p 1	176	KASNPNYLAILVKYV	3324.1135	4.13	U00099		837	837	
	Lol p 1	176	KASNPNYLAILVKYV	3324.1135	4.13	U00106	157	100	257	
	Lol p 1	176	KASNPNYLAILVKYV	3324.1135	4.13	U00125		87	87	
	Lol p 11	106	KQQGIRYANPIAFFR	3324.1137	4.14	U00125		123	123	
	Lol p 11	111	RYANPIAFFRKEPLK	3324.1138	4.14	U00125	440	1697	2137	
	Lol p 11	116	IAFFRKEPLKCEGGI	3337.0029	4.14	U00106		77	257	
	Lol p 2	51	DGVWEIKSDKPLKGP	3324.1139	4.15	U00106	103		103	
	Lol p 2	51	DGVWEIKSDKPLKGP	3324.1139	4.15	U00125	83	83	167	
	Lol p 2	51	DGVWEIKSDKPLKGP	3324.1139	4.15	D00004		577	577	
	Lol p 2	51	DGVWEIKSDKPLKGP	3324.1139	4.15	U00110		287	287	
	Lol p 2	56	IKSDKPLKGPFFNRF	3324.1140	4.15	U00110		317	317	
	Lol p 2	76	MRNVFDDVVPADFKV	3337.0030	4.16	U00106	103	110	213	
	Lol p 2	76	MRNVFDDVVPADFKV	3337.0030	4.16	D00070		133	133	
	Lol p 2	76	MRNVFDDVVPADFKV	3337.0030	4.16	U00125	460	447	907	
	Lol p 3	11	SDAKTLVLNLIKYTRP	3324.1142	4.17	U00036		227	227	
	Lol p 3	11	SDAKTLVLNLIKYTRP	3324.1142	4.17	D00004		147	147	
	Lol p 3	11	SDAKTLVLNLIKYTRP	3324.1142	4.17	U00110	150	1547	1697	
	Lol p 3	51	LWEVKSAPPLTGPMN	3337.0031	4.18	U00106	90		90	
	Lol p 3	51	LWEVKSAPPLTGPMN	3337.0031	4.18	U00125	703	1010	1713	
	Lol p 3	76	NVFDEVIPTAFTVGK	3324.1141	4.19	U00099		2258	2258	
	Lol p 3	76	NVFDEVIPTAFTVGK	3324.1141	4.19	U00125	263	820	1083	
	Lol p 4	31	PENFAVVDLQMRVAV	3324.1159	4.20	U00117	75		75	
	Lol p 4	101	LRKYGIAAENVIDVK	3324.1145	4.21	U00117	50		50	
	Lol p 4	236	NEMSWIESIPFVHLG	3324.1151	4.22	U00117	1933		1933	
	Lol p 4	321	FPHRKGVLFNQYVN	3324.1152	4.23	U00117	100		100	
	Lol p 5 1	6	HTVALFLAVLVAGP	3324.1166	4.24	U00106	53		53	
	Lol p 5 1	11	FLAVALVAGPAASVA	3324.1170	4.24	U00106		63	63	
	Lol p 5 1	71	LIEKINAGFKAAVAA	3324.1175	4.25	D00070	960	900	1860	
	Lol p 5 1	71	LIEKINAGFKAAVAA	3324.1175	4.25	U00099		1202	1202	
	Lol p 5 1	71	LIEKINAGFKAAVAA	3324.1175	4.25	U00106		263	263	
	Lol p 5 1	76	NAGFKAAVAAAAVVP	3324.1168	4.25	D00070	850	873	1723	
	Lol p 5 1	76	NAGFKAAVAAAAVVP	3324.1168	4.25	U00099		977	977	
	Lol p 5 1	76	NAGFKAAVAAAAVVP	3324.1168	4.25	U00106		248	248	
	Lol p 5 1	96	KTFVETFGTATNKAF	3324.1171	4.26	U00106	73		73	
	Lol p 5 1	106	TNKAFVEGLASGYAD	3324.1186	4.27	U00099		287	287	
	Lol p 5 1	131	DAALKLAYEAAQGAT	3324.1169	4.28	D00070	120		120	
	Lol p 5 1	146	PEAKYDAYVATLREA	3324.1180	4.29	D00070	227		227	
	Lol p 5 1	151	DAYVATLREALRVA	3324.1167	4.29	D00070	1017	410	1427	
	Lol p 5 1	151	DAYVATLREALRVA	3324.1167	4.29	U00106		1743	1743	
	Lol p 5 1	156	TLREALRVIAGTLEV	3324.1185	4.29	U00099		267	267	
	Lol p 5 1	196	VDAAYRTAATAANAA	3324.1181	4.30	U00106		383	383	
	Lol p 5 1	216	FTVFENTFNNAIKVS	3324.1179	4.31	U00099		87	87	
	Lol p 5 1	236	DSYKFIPTLVAAVKQ	3324.1165	4.32	U00099		382	382	
	Lol p 5 1	236	DSYKFIPTLVAAVKQ	3324.1165	4.32	U00106		78	78	
Lol p 5 1	246	AAVKQYAAKQATAP	3324.1177	4.33	U00106	43		43		
Lol p 5 1	261	EVKYTVSETALKKAV	3324.1178	4.34	U00106		333	333		
Lol p 5 1	271	LKKAVTAMSEAEKEA	3324.1183	4.35	U00106		128	128		
Lol p 5 1	306	PAAAYATATPAAATA	3324.1184	4.36	U00106	58		58		
Lol p 5 1	306	PAAAYATATPAAATA	3324.1184	4.36	U00099		1637	1637		
Lol p 5 2	181	AFKIAATAANAAPTIN	3324.1197	4.37	D00004		1200	1200		
Lol p 5 2	181	AFKIAATAANAAPTIN	3324.1197	4.37	U00106		887	887		
Lol p 5 2	181	AFKIAATAANAAPTIN	3324.1197	4.37	D00070	173		173		
Lol p 5 2	196	DKFTVFESAFNKALN	3324.1191	4.38	U00106		97	97		
Lol p 5 2	251	AALTKAITAMTQAQK	3324.1196	4.39	U00099		998	998		
Canary grass	Pha a 1	186	PNYLALLVKYVDGDD	3324.1428	4.40	U00099	153	132	285	
	Pha a 1	186	PNYLALLVKYVDGDD	3324.1428	4.40	D00052		323	323	
	Pha a 1	186	PNYLALLVKYVDGDD	3324.1428	4.40	D00070	147		147	
	Pha a 1	186	PNYLALLVKYVDGDD	3324.1428	4.40	U00029	1340		1340	
	Pha a 1	221	SWGAIWRIDTPDKLT	3337.0039	4.41	U00106	155		155	
	Pha a 5	101	DAAYRVAYEAAEGST	3324.1443	4.42	U00117	70		70	
	Pha a 5	121	DAFIAALTEALRVIA	3324.1432	4.43	U00029	713		713	
	Pha a 5	121	DAFIAALTEALRVIA	3324.1432	4.43	D00052		540	540	
	Pha a 5	126	ALTEALRVIAAGAFEV	3324.1437	4.43	D00070	427		427	
	Pha a 5	166	AAFKAATAANSAPA	3324.1441	4.44	U00029	2018		2018	
	Pha a 5	166	AAFKAATAANSAPA	3324.1441	4.44	U00099		203	203	
	Pha a 5	181	NDKFTVFEGAFNKAI	3324.1442	4.45	D00052		400	400	
	Pha a 5	181	NDKFTVFEGAFNKAI	3324.1442	4.45	U00117	93		93	
	Pha a 5	201	GAYETYKFIPSELEA	3324.1433	4.46	D00052		247	247	
	Pha a 5	201	GAYETYKFIPSELEA	3324.1433	4.46	U00029	208		208	
	Pha a 5	201	GAYETYKFIPSELEA	3324.1433	4.46	U00099	153		153	
	Pha a 5	206	YKFIPSELEAAVKQAY	3324.1436	4.46	D00070	513	290	803	
	Pha a 5	206	YKFIPSELEAAVKQAY	3324.1436	4.46	U00099		57	243	
	Pha a 5	206	YKFIPSELEAAVKQAY	3324.1436	4.46	U00029	193		193	
	Kentucky blue grass	Poa p 1	121	EPIAAYHFDLSGKAF	3324.1556	4.79	D00004	297		297
Poa p 1		121	EPIAAYHFDLSGKAF	3324.1556	4.79	U00032		183	183	
Poa p 1		121	EPIAAYHFDLSGKAF	3324.1556	4.79	U00102		877	877	
Poa p 1		176	KGSNPNYLALLVKYV	3324.1557	4.80	U00102		290	290	
Poa p 1		181	NYLALLVKYVTDGDD	3324.1558	4.80	U00102		80	80	
Poa p 1		191	DKFTVFEEAFNNAIK	3324.1562	4.81	U00102		183	183	
Poa p 5		51	QKLMEDINVGFKAAV	3324.1580	4.82	U00101	317		317	
Poa p 5		51	QKLMEDINVGFKAAV	3324.1580	4.82	U00110	283	107	390	

Supplemental Table 3. Positive donor/peptide responses

Category	Organism	Antigen	Position	Sequence	Peptide ID	Region ID	Donor	Response (SFC/10 ⁶)		
								IFNg	IL-5	Total
		Poa p 5	56	DINVGFKAAVAAAAG	3324.1571	4.82	U00106		397	397
		Poa p 5	56	DINVGFKAAVAAAAG	3324.1571	4.82	U00115	47		47
		Poa p 5	56	DINVGFKAAVAAAAG	3324.1571	4.82	U00034		1057	1057
		Poa p 5	56	DINVGFKAAVAAAAG	3324.1571	4.82	U00102	1183		1183
		Poa p 5	61	FKAAVAAAAGAPPAD	3324.1575	4.82	U00032		138	138
		Poa p 5	61	FKAAVAAAAGAPPAD	3324.1575	4.82	U00034		327	327
		Poa p 5	61	FKAAVAAAAGAPPAD	3324.1575	4.82	U00102	230		230
		Poa p 5	121	ATPEAKFDSFVAAFT	3324.1570	4.83	U00032		238	238
		Poa p 5	121	ATPEAKFDSFVAAFT	3324.1570	4.83	U00115	80		80
		Poa p 5	121	ATPEAKFDSFVAAFT	3324.1570	4.83	U00102	117		117
		Poa p 5	131	VAAFTEALRIIAGVL	3324.1576	4.84	U00115	117		117
		Poa p 5	131	VAAFTEALRIIAGVL	3324.1576	4.84	U00102	127		127
		Poa p 5	176	AFKVAATAANAAPAN	3324.1578	4.85	U00032	127	548	675
		Poa p 5	176	AFKVAATAANAAPAN	3324.1578	4.85	U00110	100		100
		Poa p 5	176	AFKVAATAANAAPAN	3324.1578	4.85	U00034		107	107
		Poa p 5	176	AFKVAATAANAAPAN	3324.1578	4.85	U00106		820	820
		Poa p 5	176	AFKVAATAANAAPAN	3324.1578	4.85	U00102	83		83
		Poa p 5	176	AFKVAATAANAAPAN	3324.1578	4.85	U00115	77		77
		Poa p 5	206	ESTGGAYDYTKSIPS	3324.1583	4.86	U00115		157	157
		Poa p 5	211	AYDITYKSIPSLAAAV	3324.1579	4.86	U00032		98	98
		Poa p 5	211	AYDITYKSIPSLAAAV	3324.1579	4.86	U00101	163		163
		Poa p 5	211	AYDITYKSIPSLAAAV	3324.1579	4.86	U00106		1320	1320
		Poa p 5	221	LEAAVKQAYAATIAA	3324.1564	4.87	U00115		180	180
		Poa p 5	221	LEAAVKQAYAATIAA	3324.1564	4.87	U00102	1190		1190
	English plantain	Plal 1	21	HSRNLINELSERMAG	3324.1552	5.01	D00004		118	118
		Plal 1	21	HSRNLINELSERMAG	3324.1552	5.01	U00072		190	190
		Plal 1	21	HSRNLINELSERMAG	3324.1552	5.01	U00102		57	57
		Plal 1	76	IKLVKSSRPDCSEIP	3337.0044	5.02	D00004	90		90
		Plal 1	76	IKLVKSSRPDCSEIP	3337.0044	5.02	U00072		233	233
	Giant ragweed	Amb t 5	1	MKNIFMLTLFILIIT	3324.0099	5.03	D00002		57	57
		Amb t 5	1	MKNIFMLTLFILIIT	3324.0099	5.03	D00095	77		77
		Amb t 5	6	MLTLFILIITSTIKA	3324.0100	5.03	D00007	63		63
		Amb t 5	6	MLTLFILIITSTIKA	3324.0100	5.03	D00096	167		167
		Amb t 5	31	KQEDDGLCYEGTNCG	3337.0006	5.04	D00096	123		123
		Amb t 5	56	GKYVCYDSKAICNK	3337.0007	5.05	D00007	47		47
	Russian thistle	Sal k 1 1	81	EKVKIERLHPYITLY	3324.1599	5.06	D00047		260	260
		Sal k 1 1	111	AAEFGTVDSATLIVE	3324.1596	5.07	D00047		3003	3003
		Sal k 1 1	126	SDYFVGANLIVSNSA	3324.1594	5.08	D00047		920	920
		Sal k 1 1	131	GANLIVSNSAPRPD	3324.1601	5.08	D00047		147	147
		Sal k 1 1	191	EGTVDFIFGEARSLY	3324.1590	5.09	D00047	397	1300	1697
		Sal k 1 1	191	EGTVDFIFGEARSLY	3324.1590	5.09	U00106		363	363
		Sal k 1 1	196	FIFGEARSLYLNTEL	3324.1591	5.09	D00047		500	500
		Sal k 1 1	196	FIFGEARSLYLNTEL	3324.1591	5.09	U00106		133	133
		Sal k 1 1	251	LGRAWFEEARVVSFY	3324.1592	5.10	D00047	120	1430	1550
		Sal k 1 1	256	FEAARVVSFYCNLSD	3324.1593	5.10	D00047		363	363
		Sal k 1 1	321	FTSLEYIEAAKWLLP	3324.1589	5.11	D00047	310	1433	1743
		Sal k 1 1	321	FTSLEYIEAAKWLLP	3324.1589	5.11	U00106		203	203
		Sal k 1 1	325	EYIEAAKWLLPPPKV	3324.1600	5.11	D00047		980	980
		Sal k 1 2	11	RTIFFDAYLGTSYVI	3324.1602	5.12	D00047		433	433
		Sal k 1 2	16	DAYLGTSYVIVIKEP	3324.1603	5.12	D00047		290	290
		Sal k 2	171	KIAAEIAIALLFLRD	3324.1606	5.13	D00047		90	90
		Sal k 2	176	IAIALLFLRDAKPEP	3324.1608	5.13	D00047		97	97
		Sal k 2	261	SFGILLQLLTARPP	3324.1609	5.14	D00047		103	103
		Sal k 3	91	FDLYFSMARGNASLP	3324.1653	5.15	D00047	343		343
		Sal k 3	191	VIAELKAAGASTIQF	3324.1632	5.16	D00047		313	313
		Sal k 3	261	VTAFGFDLVRGTKTL	3324.1640	5.17	D00047		73	73
		Sal k 3	306	SLATLQSLESIVGKD	3324.1647	5.18	D00047	228		228
		Sal k 3	341	TKLDDEIKSWLAFAA	3324.1630	5.19	D00047		87	87
		Sal k 3	376	FFSANAALASRKSS	3324.1636	5.20	D00047	93		93
		Sal k 3	621	GFYLQWAVHSFRITN	3324.1625	5.21	D00047	193	143	337

Supplemental Table 4. HLA class II binding patterns of prevalently recognized epitope regions (IC50 nM)

Region ID	Organism	Source protein	Acc. no.	Pos	Sequence	Peptide ID	DRB1*0101	DRB1*0301	DRB1*0401	DRB1*0404	DRB1*0405	DRB1*0701	DRB1*0802	DRB1*0901	DRB1*1001
1.01	Alt. rot fungus	Alt a 1	P79085	6	IASLFAAAAGLAAAAP	3324.0015	2.0	32079	9.1	5.6	1814	1007	45	62	12
1.01	Alt. rot fungus	Alt a 1	P79085	11	AAAGLAAAAPLESRQ	3324.0017	18	919	37	5.0	340	532	15	128	15
1.02	Alt. rot fungus	Alt a 1	P79085	111	KVSDDDITYVATATLP	3324.0013	127	642	208	5875	234	66	151	178	291
1.02	Alt. rot fungus	Alt a 1	P79085	116	ITYVATATLPNYCRA	3324.0014	21	5584	7.0	78	14654	32	10	121	1.4
1.03	Alt. rot fungus	Alt a 1	P79085	141	QGVADAYITLVTLPK	3324.0011	151	8348	106	423	175	585	42	749	79
1.03	Alt. rot fungus	Alt a 1	P79085	143	VADAYITLVTLPKSS	3324.0016	6.5	2797	6.3	5.0	34	4890	7.9	315	23
1.08	Alt. rot fungus	Alt a 5	P42037	51	INELIASGSEKLASV	3324.0065	6.7	32	78	110	30	312	11	56	61
1.12	Alt. rot fungus	Alt a 6	Q9HDT3	161	GGRLAFQEFMIVPCE	3324.0073	238	2520	708	479	215	476	3199	782	568
1.20	Alt. rot fungus	Alt a 7	P42058	190	AQGKAFYEAVALAHQ	3324.0080	56	4114	60	102	200	176	5.1	170	56
1.22	Alt. rot fungus	Alt a 7	P42058	6	AIVYYSMYGHKKMA	3324.0085	5.2	16530	882	248	781	345	25	50	87
1.32	<i>A. fumigatus</i>	Asp f 17	O60025	91	SKKDKFVAANAGGTV	3324.0212	3.6	40660	206	1107	91	35	50	12	18
1.38	<i>C. herbarum</i>	Cl a 5	P42039	6	AFLLGLAGNSSPSA	3324.0576	0.96	50000	7.5	683	900	21427	86	14	0.92
1.41	<i>C. herbarum</i>	Cl a 6	P42040	161	GGRLAFQEFMIVPSG	3324.0588	486	5286	549	820	952	393	42	63	47
1.48	<i>C. herbarum</i>	Cl a 8	PoCoY5	101	QIDAFIANAGATADS	3324.0601	1.7	150	6716	6451	6807	1186	11	0.62	58
1.49	<i>C. herbarum</i>	Cl a 8	PoCoY5	151	GTGSLVITASMSGHI	3324.0603	49	3530	6.6	76	162	6.3	498	202	74
1.50	<i>C. herbarum</i>	Cl a 8	PoCoY5	181	GCIHMARSLANEWRD	3324.0602	24	2757	33	7.8	128	19	94	152	8.9
1.51	<i>C. herbarum</i>	Cl a 8	PoCoY5	236	KELKGAYVVFASDAS	3324.0598	4.8	2317	10	5806	6569	174	16	4.5	8.6
1.54	<i>P. chrysogenum</i>	Pen ch 13	Q9URR2	101	PAVKYIEPDMIVNAT	3324.1304	128	64	120		233	69	6101	342	10
1.57	<i>P. chrysogenum</i>	Pen ch 13	Q9URR2	271	GIFLSVAAGNEAENA	3324.1303	6.9	3592	28	63	942	90	54	57	4.0
1.63	<i>P. chrysogenum</i>	Pen ch 18	Q9P8G3	226	KFGVAKKANVYAVKV	3324.1330	18	9196	616	108	4648	15	2.6	79	31
1.64	<i>P. chrysogenum</i>	Pen ch 18	Q9P8G3	291	LDLAVNAADVAGIHF	3324.1331	58	780	521	78	1356	510	135	336	830
2.15	Cat epithelia	Fel d 1 1	P30438	41	DEYVEQVAQYKALPV	3324.1049	4.8	9240	41	1246	795	62	208	107	5.8
2.15	Cat epithelia	Fel d 1 1	P30438	46	QVAQYKALPVVLENA	3324.1051	1.4	19151	90	59	37	77	90	37	10
2.16	Cat epithelia	Fel d 1 1	P30438	78	NALSVDLKIYTSPLC	3324.1050	89	320	169	97	445	174	33	591	40
2.17	Cat epithelia	Fel d 1 2	P30440	21	AETCFPIFYDVFVAFA	3324.1056	766	71	442	271	556	1112	1213	2567	265
2.17	Cat epithelia	Fel d 1 2	P30440	26	IFYDVFVAANGNEL	3324.1052	14	5343	377	183	6079	114	25	56	81
2.18	Cat epithelia	Fel d 1 2	P30440	36	NGNELLLDLSLTKVN	3324.1055	663	19	451	102	926	945	425	408	415
2.30	<i>D. farinae</i>	Der f 1	A1YW11	131	GSCWAFSGVAATESA	3324.0670	42	38891	23	1616	238	216	84	47	31
2.30	<i>D. farinae</i>	Der f 1	A1YW11	136	FSGVAATESAYLAYR	3324.0666	8.8	5135	62	482	507	17	78	20	34
2.56	<i>D. pteronyssinus</i>	Der p 1	P08176	131	SCWAFSGVAATESAY	3324.0832	11	25798	49	267	70	8721	29	0.39	
2.56	<i>D. pteronyssinus</i>	Der p 1	P08176	136	SGVAATESAYLAYRN	3324.0829	9.6	2816	127	903	33	9532	66	7.7	
2.57	<i>D. pteronyssinus</i>	Der p 1	P08176	176	RGIEYIQHNGVVQES	3324.0831	223	1145	84	341	123	783	246	61	
2.58	<i>D. pteronyssinus</i>	Der p 1	P08176	226	REALAQTHSAIAVII	3324.0840	11	4216	25	962	1.8	963	4.2	61	
2.73	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	86	NKAGVRIYVDIVLNI	3324.0981	951	275	332	93	181	919	376	4205	73
2.73	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	96	IVLNHMTGAQSGKGT	3324.0987	1.2	14905	6688	27	5537	208	94	44	14
2.75	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	251	IEFRFYKEITNVFRG	3324.0976	7.6	516	14	583	75	72	1.9	45	12
2.77	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	321	AFMLAWNYGVPVMS	3324.0977	1.6	49	82	628	66	12	5.6	5.7	54
2.79	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	381	EHRWREIYNMVKFRM	3324.0986	131	706	170	252	331	295	41	1010	92
2.79	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	386	EIYNMVKFRMIAGQE	3324.0978	27	665	317	84	79	8.9	6.2	120	11
2.80	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	411	YQIAFSRGNRAFIAI	3324.0980	1.7	117	14	27	1.2	8491	2.5	1.7	
2.80	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	416	SRGNRAFIAINLQKN	3324.0974	24	615	92	415	160	118	69	38	4.1
2.81	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	476	VYGHDEFDAFVAYHI	3324.0975	19	8516	1172	1970	667	0.81	3.7	11	15
2.81	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	482	FDAFVAYHIGARIVS	3324.0971	0.75	7274	248	1425	466	0.73	1.1	1.2	38
3.01	Alder	Aln g 1	P38948	11	PSVIPAARLFKAFIL	3324.0004	13	56	666	444	221	5.0	55	38	1.1
3.01	Alder	Aln g 1	P38948	16	AARLFKAFILDGDKL	3324.0003	19	1069	525	706	19	9.6	224	272	3.3
3.02	Alder	Aln g 1	P38948	111	GGSILKISNKFHTKG	3324.0007	19	32	84	12	126	113	5.3	302	42
3.06	Birch	Bet v 1	O23754	96	LEKISNEIKIVATPD	3324.0353	182	1362	5260	269	1693	205	244	875	595
3.07	Birch	Bet v 1	O23754	111	GGSILKISNKHHTKG	3324.0352	12	78	140	92	87	558	6.2	92	393
3.13	Birch	Bet v 6	Q9FUW6	206	RTLNKIVYIKPAKNI	3324.0387	4.5	979	74	13	156	19	1.5	9.2	7.0
3.13	Birch	Bet v 6	Q9FUW6	211	IVYIKPAKNIYSFNE	3324.0386	2.0	504	5.1	7.8	63	14	2.8	4.4	2.0
3.17	Cypress	Cha o 1	Q96385	86	ERSLWIIFSKNLNIK	3324.0517	1.3	57	56	14	17	4.6	7.4	15	84
3.17	Cypress	Cha o 1	Q96385	96	NLNKLNMPLYIAGN	3324.0523	528	15393	27672	3563	3490	544	159	795	878
3.18	Cypress	Cha o 1	Q96385	211	NHFFNHKKVMLLGH	3324.0521	65	6873	208	277	157	12	22	105	124
3.21	Cypress	Cup a 1	Q9SCG9	66	KALWIIFSQNMNIKL	3324.0604	831	4445	294	404	1484	153	1898	222	88
3.21	Cypress	Cup a 1	Q9SCG9	71	IFSQNMNIKLQMPLY	3324.0607	106	86	212	245	433	536	30	284	175
3.23	Cypress	Cup a 1	Q9SCG9	316	EDTNIYNSNEAFKVE	3324.0606	25	263	617	3139	4994	46	6524	48	580
3.24	Cypress	Cup s 1	Q9M4S2	86	EKALWIIFSQNMNIKL	3324.0615	64	878	312	196	427	173	875	82	45
3.24	Cypress	Cup s 1	Q9M4S2	91	IIFSQNMNIKLKMPL	3324.0618	115	568	6397	6342	8675	115	65	958	593
3.24	Cypress	Cup s 1	Q9M4S2	96	NMNIKLKMPLYVAGH	3324.0624	7.6	4211	4828	998	2537	6151	21	243	125
3.26	Cypress	Cup s 1	Q9M4S2	211	NHFFNHKKVMLLGH	3324.0616	24	22741	71	2257	573	3.4	5.7	66	14
3.40	White oak	Que a 1	B6RQS2	11	ASVIPPARLFKAFVL	3324.1587	29	778	15	43	92	1.5	82	15	0.69
3.40	White oak	Que a 1	B6RQS2	16	PARLFKAFVLDSNDL	3324.1585	98	92	16	15	28	14	259	61	3.9
3.40	White oak	Que a 1	B6RQS2	21	KAFVLDSNDLIPKVV	3324.1588	24	7.6	4.9	49	39	40	287	74	25

Supplemental Table 4. HLA class II binding patterns of prevalently recognized epitope regions (IC50 nM)

Region ID	Organism	Source protein	Acc. no.	Pos	Sequence	Peptide ID	DRB1*0101	DRB1*0301	DRB1*0401	DRB1*0404	DRB1*0405	DRB1*0701	DRB1*0802	DRB1*0901	DRB1*1001
3.41	White oak	Que a 1	B6RQS2	141	ASEVFKAVEAYLVAH	3324.1584	0.95	778	49	7871	5866	17	19	6.7	1.6
4.06	Orchard grass	Dac g 1	Q7XAX7	181	PNYLALLVKYVDGDG	3324.0655	7.8	11727	315	1084	72	114	47	72	11
4.07	Orchard grass	Dac g 2	Q41183	11	GSDEKNLALSISKYK	3324.0657	110	98	2656	3379	3409	439	25	851	149
4.07	Orchard grass	Dac g 2	Q41183	16	NLALSIKYNKEGDSM	3324.0658	768	275	2078	2339	1425	1853	37	2776	109
4.09	Orchard grass	Dac g 4	P82946	1	DIYNYMEPYVSKVDP	3324.0663	13	50000	102	22853	5897	23453	311	344	9.4
4.13	Rye grass	Lol p 1	P14946	176	KASNPNYLAILVKYV	3324.1135	3.0	14228	221	3.0	124	7.4	2.0	34	11
4.14	Rye grass	Lol p 11	Q7M1X5	111	RYANPIAFFRKEPLK	3324.1138	19	1487	255	464	1961	382	25	240	62
4.14	Rye grass	Lol p 11	Q7M1X5	116	IAFFRKEPLKECGGI	3337.0029	71	1218	298	3198	413	3495	6.8	953	280
4.15	Rye grass	Lol p 2	P14947	51	DGVWEIKSDKPLKGP	3324.1139	1394	84	67	262	9793	30936	462	35386	8804
4.15	Rye grass	Lol p 2	P14947	56	IKSDKPLKGFNFRF	3324.1140	666	2270	710	5959	8878	1109	3400	2041	573
4.16	Rye grass	Lol p 2	P14947	76	MRNVFDDVVPADFVKV	3337.0030	707	22	788	5700	1650	443	535	9626	705
4.17	Rye grass	Lol p 3	P14948	11	SDAKTLVLNIKYTRP	3324.1142	1552	283	9616	1376	14819	3764	65	22025	4945
4.18	Rye grass	Lol p 3	P14948	51	LWEVKSAKPLTGPMN	3337.0031	91	475	585	157	7244	360	57	836	99
4.19	Rye grass	Lol p 3	P14948	76	NVFDEVIPTAFTVYGK	3324.1141	292	1398	1374	4295	4254	282	5203	2919	819
4.25	Rye grass	Lol p 5 1	Q40237	71	LIEKINAGFKAAVAA	3324.1175	36	190	484	341	3095	557	343	60	26
4.29	Rye grass	Lol p 5 1	Q40237	151	DAYVATLREALRVIA	3324.1167	10	577	98	996	837	13	246	72	8.5
4.29	Rye grass	Lol p 5 1	Q40237	156	TLTEALRVIAGTLEV	3324.1185	47	1223	110	103	6389	14	187	69	33
4.32	Rye grass	Lol p 5 1	Q40237	236	DSYKFIPTLVAAVKQ	3324.1165	1.1	1654	3.9	6042	8523	16	6.1	6.1	4.7
4.36	Rye grass	Lol p 5 1	Q40237	306	PAAAYATATPAAATA	3324.1184	0.60	11254	1.0	10	568	161	2.5	4.7	1.3
4.37	Rye grass	Lol p 5 2	Q40240	181	AFKIAATAANAAPT	3324.1197	1.7	2824	0.75	2.1	586	11	3.4	8.4	0.45
4.40	Canary grass	Pha a 1	Q41260	186	PNYLALLVKYVDGDG	3324.1428	6.1	12592	1032	650	42	173	42	82	21
4.43	Canary grass	Pha a 5	P56164	121	DAFIAALTEALRVIA	3324.1432	1.5	21	7.9	4.5	2.4	1.1	66	6.8	0.37
4.43	Canary grass	Pha a 5	P56164	126	ALTEALRVIAGAFEV	3324.1437	19	3994	6712	101	666	8.4	60	71	28
4.44	Canary grass	Pha a 5	P56164	166	AAFKIAATAANSAPA	3324.1441	0.62	1366	0.96	1.3	16	6.8	1.7	2.9	0.91
4.45	Canary grass	Pha a 5	P56164	181	NDKFTVFEGAFNKAI	3324.1442	13	7870	47	71	96	8.4	166	24	1.6
4.46	Canary grass	Pha a 5	P56164	201	GAYETYKFIPLSLEAA	3324.1433	1.5	2291	5.6	722	5901	15	19	13	2.3
4.46	Canary grass	Pha a 5	P56164	206	YKFIPSLAAVVKQAY	3324.1436	1.3	532	4.2	54	6911	21	60	25	9.4
4.79	Kentucky blue grass	Poa p 1	Q9ZP03	121	EPIAAYHFDLSGKAF	3324.1556	3.0	2447	4.7	460	6859	28	65	7.8	30
4.82	Kentucky blue grass	Poa p 5	Q9FFP0	51	QKLMEDINVGFKAAV	3324.1580	15	3.4	105	6410	6660	474	315	58	195
4.82	Kentucky blue grass	Poa p 5	Q9FFP0	56	DINVGFKAAVAAAAG	3324.1571	1.5	7971	13	53	615	37	4.8	8.9	7.3
4.82	Kentucky blue grass	Poa p 5	Q9FFP0	61	FKAAVAAAAGAPPAD	3324.1575	2.2	50000	100	1254	11606	101	43	5.6	13
4.83	Kentucky blue grass	Poa p 5	Q9FFP0	121	ATPEAKFDSFVAFT	3324.1570	102	4730	59	1256	726	98	240	65	31
4.84	Kentucky blue grass	Poa p 5	Q9FFP0	131	VAAFTALRIAGVL	3324.1576	59	4940	328	348	1013	41	42	101	83
4.85	Kentucky blue grass	Poa p 5	Q9FFP0	176	AFKVAATAANAAPAN	3324.1578	14	43392	10	6066	398	52	49	73	3.2
4.86	Kentucky blue grass	Poa p 5	Q9FFP0	206	ESTGGAYDTYKSIPS	3324.1583	170	1197	54	4381	7674	519	189	514	56
4.86	Kentucky blue grass	Poa p 5	Q9FFP0	211	AYDTYKSIPSLAAV	3324.1579	1.7	4684	2.5	65	5999	57	17	39	4.1
4.87	Kentucky blue grass	Poa p 5	Q9FFP0	221	LEAAVKQAYAAATIAA	3324.1564	4.1	5747	163	300	3110	1.8	317	5.3	147
5.09	Russian thistle	Sal k 1 1	Q17ST3	191	EGTVDFIFGEARSLY	3324.1590	1.5	11	419	21	2888	14	105	9.1	278
5.11	Russian thistle	Sal k 1 1	Q17ST3	321	FITSLEYIEAAKWLLP	3324.1589	105	315	621	823	477	177	528	382	98

Supplemental Table 4. HLA class II binding patterns of prevalently re

Region ID	Organism	Source protein	Acc. no.	Pos	Sequence	Peptide ID	DRB1*1101	DRB1*1201	DRB1*1302	DRB1*1501	DRB1*1602	DRB3*0101	DRB3*0202	DRB4*0101	DRB5*0101
1.01	Alt. rot fungus	Alt a 1	P79085	6	IASLFAAAGLAAAAP	3324.0015	1262	10995	3251	11	871	46138	4645	301	746
1.01	Alt. rot fungus	Alt a 1	P79085	11	AAAGLAAAAPLESRQ	3324.0017	924	17178	5638	148	956	50000	1043	28	135
1.02	Alt. rot fungus	Alt a 1	P79085	111	KVSDDDITYVATATLP	3324.0013	883	7666	52	478	856	6000	5275	1159	1756
1.02	Alt. rot fungus	Alt a 1	P79085	116	ITYVATATLPNYCRA	3324.0014	16	994	1012	1232	504	1325	8.7	4417	68
1.03	Alt. rot fungus	Alt a 1	P79085	141	QGVADAYITLVTLPK	3324.0011	90	7907	3934	86	3403	3672	3832	627	81
1.03	Alt. rot fungus	Alt a 1	P79085	143	VADAYITLVTLPKSS	3324.0016	16	5300	5151	122	436	13047	324	58	8.3
1.08	Alt. rot fungus	Alt a 5	P42037	51	INELLASGSEKLASV	3324.0065	1312	8620	4.1	14	237	3736	8.5	193	138
1.12	Alt. rot fungus	Alt a 6	Q9HDT3	161	GGRLAFQEFMIVPCE	3324.0073	6086	3836	178	344	3918	12846	2123	24	2781
1.20	Alt. rot fungus	Alt a 7	P42058	190	AQGKAFYEAVALAHQ	3324.0080	29	17697	3652	1230	2135	32587	3230	548	38
1.22	Alt. rot fungus	Alt a 7	P42058	6	AIVYYSMYGHKKMA	3324.0085	82	1639	191	1.1	491	21576	2686	186	4.3
1.32	<i>A. fumigatus</i>	Asp f 17	O60025	91	SKKDKFVAANAGGTV	3324.0212	716	50000	0.35	1167	350	203	783	6746	129
1.38	<i>C. herbarum</i>	Cl a h 5	P42039	6	AFLLGLAGNSSPSA	3324.0576	207	674	48	67	115	50000	29	98	363
1.41	<i>C. herbarum</i>	Cl a h 6	P42040	161	GGRLAFQEFMIVPSG	3324.0588	1050	7350	7.1	3552	380	8985	1087	4.0	3599
1.48	<i>C. herbarum</i>	Cl a h 8	PoCoY5	101	QIDAFIANAGATADS	3324.0601	357	14150	0.79	146	14	31	3.5	920	3843
1.49	<i>C. herbarum</i>	Cl a h 8	PoCoY5	151	GTGSLVITASMGGHI	3324.0603	262	1558	0.52	71	99	5715	1554	594	3279
1.50	<i>C. herbarum</i>	Cl a h 8	PoCoY5	181	GCIHMARSLANEWRD	3324.0602	38	402	77	52	186	3902	61	270	122
1.51	<i>C. herbarum</i>	Cl a h 8	PoCoY5	236	KELKGAYVVFASDAS	3324.0598	702	1169	106	71	36	90	696	8.3	904
1.54	<i>P. chrysogenum</i>	Pen ch 13	Q9URR2	101	PAVKYIEPDMIVNAT	3324.1304	539	5431	23	64	515	1413	926	4.9	363
1.57	<i>P. chrysogenum</i>	Pen ch 13	Q9URR2	271	GIFLSVAAGNEAENA	3324.1303	663	26989	70	227	70	10285	96	107	75
1.63	<i>P. chrysogenum</i>	Pen ch 18	Q9P8G3	226	KFGVAKKANVYAVKV	3324.1330	39	1160	45	61	399	19072	1165	36	38
1.64	<i>P. chrysogenum</i>	Pen ch 18	Q9P8G3	291	LDLAVNAADVAGIHF	3324.1331	5469	3112	1.2	1247	6275	56	10	4.6	19692
2.15	Cat epithelia	Fel d 1 1	P30438	41	DEYVEQVAQYKALPV	3324.1049	779	76	644	8.3	99	3223	425	2106	15
2.15	Cat epithelia	Fel d 1 1	P30438	46	QVAQYKALPVVLENA	3324.1051	499	114	1116	19	101	7529	1007	1739	902
2.16	Cat epithelia	Fel d 1 1	P30438	78	NALSVDLKIYTSPLC	3324.1050	166	780	325	73	627	287	2461	157	1112
2.17	Cat epithelia	Fel d 1 2	P30440	21	AETCFPIFYDVFVAFA	3324.1056	7993	738	40	688	1173	240	5759	2410	17988
2.17	Cat epithelia	Fel d 1 2	P30440	26	IFYDVFVAANGNEL	3324.1052	5450	6429	35	284	555	889	941	50000	506
2.18	Cat epithelia	Fel d 1 2	P30440	36	NGNELLLDLSLTKVN	3324.1055	6739	1806	208	840	2471	103	1870	406	1633
2.30	<i>D. farinae</i>	Der f 1	A1YW11	131	GSCWAFSGVAATESA	3324.0670	11595	32537	38812	178	501	50000	524	38259	3721
2.30	<i>D. farinae</i>	Der f 1	A1YW11	136	FSGVAATESAYLAYR	3324.0666	4770	32626	958	68	65	50000	13194	8441	823
2.56	<i>D. pteronyssinus</i>	Der p 1	P08176	131	SCWAFSGVAATESAY	3324.0832	563	15767	50000	827	70	50000	615	3875	503
2.56	<i>D. pteronyssinus</i>	Der p 1	P08176	136	SGVAATESAYLAYRN	3324.0829	647	12480	1342	52	110	50000	2256	454	611
2.57	<i>D. pteronyssinus</i>	Der p 1	P08176	176	RGIEYIQHNGVVQES	3324.0831	810	654	71	178	384	50000	1020	223	3872
2.58	<i>D. pteronyssinus</i>	Der p 1	P08176	226	REALAQTHSAIAVVI	3324.0840	453	1179	13	13	124	50000	3764	438	2201
2.73	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	86	NKAGVRIYVDIVLNI	3324.0981	2403	2559	23	70	94	116	4601	113	7898
2.73	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	96	IVLNHMTGAQSGKGT	3324.0987	365	5198	215	1386	4775	50000	236	118	799
2.75	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	251	IEFRFYKEITNVFRG	3324.0976	700	10622	79	3.9	14	69	3489	463	15
2.77	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	321	AFMLAWNYGVPVMS	3324.0977	155	903	324	6.5	9.2	855	7.2	25	25
2.79	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	381	EHRWREIYNMVKFRM	3324.0986	64	87	306	105	170	5036	1745	48	5.4
2.79	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	386	EIYNMVKFRMIAGQE	3324.0978	9.4	109	200	38	75	6603	1665	163	285
2.80	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	411	YQIAFSRGNRAFI	3324.0980	55	881	0.15	1.7	24	1125	6.1	4.9	9.4
2.80	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	416	SRGNRAFIANLQKN	3324.0974	1145	3589	6.1	29	114	1497	6.0	3.7	52
2.81	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	476	VYVGHDEFDAFVAYHI	3324.0975	68	1340	122	6.3	281	1238	2680	107	39
2.81	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	482	FDAFVAYHIGARIVS	3324.0971	37	241	2.5	0.46	16	5339	19	743	1.6
3.01	Alder	Aln g 1	P38948	11	PSVIPAARLFKAFIL	3324.0004	30	831	1054	1.5	150	1657	2038	67	213
3.01	Alder	Aln g 1	P38948	16	AARLFKAFILDGDKL	3324.0003	3827	987	12310	4.2	354	75	4320	30	57
3.02	Alder	Aln g 1	P38948	111	GGSILKISNKFHTKG	3324.0007	11	1272	606	2.0	606	13748	3140	66	15
3.06	Birch	Bet v 1	O23754	96	LEKISNEIKIVATPD	3324.0353	137	2320	48	318	425	4859	779	320	1637
3.07	Birch	Bet v 1	O23754	111	GGSILKISNKHHTKG	3324.0352	15	1192	28	4.6	323	4855	5846	202	36
3.13	Birch	Bet v 6	Q9FUW6	206	RTLNKIVYIKPAKNI	3324.0387	44	420	0.84	28	146	530	16	4.6	24
3.13	Birch	Bet v 6	Q9FUW6	211	IVYIKPAKNIYSFNE	3324.0386	14	44	2.8	5.8	46	268	2.4	1.1	18
3.17	Cypress	Cha o 1	Q96385	86	ERSLWIIFSKNLNIK	3324.0517	19	93	0.43	1.3	25	1218	112	71	106
3.17	Cypress	Cha o 1	Q96385	96	NLNKLNMPLYIAGN	3324.0523	6105	5877	1.2	203	6265	7305	378	718	9501
3.18	Cypress	Cha o 1	Q96385	211	NHFFNHKVMLLGHS	3324.0521	215	2806	60	124	660	10863	557	24	2408
3.21	Cypress	Cup a 1	Q9SCG9	66	KALWIIFSQNMNIK	3324.0604	3252	3488	13	582	378	2626	275	128	582
3.21	Cypress	Cup a 1	Q9SCG9	71	IFSQNMNIKLMPLY	3324.0607	226	52	5.9	654	1012	503	3.0	0.23	1960
3.23	Cypress	Cup a 1	Q9SCG9	316	EDTNIYNSNEAFKVE	3324.0606	11359	5992	0.84	100	2661	105	25	7518	1139
3.24	Cypress	Cup s 1	Q9M4S2	86	EKALWIIFSQNMNIK	3324.0615	1519	820	15	50	195	2736	706	12	2176
3.24	Cypress	Cup s 1	Q9M4S2	91	IIFSQNMNIKLMPL	3324.0618	143	654	15	127	1146	2187	5.6	626	200
3.24	Cypress	Cup s 1	Q9M4S2	96	NMNIKLMPLYVAGH	3324.0624	98	206	225	10	559	18149	1152	152	639
3.26	Cypress	Cup s 1	Q9M4S2	211	NHFFNHKVMLLGHD	3324.0616	237	2932	200	142	914	7250	549	11	2201
3.40	White oak	Que a 1	B6RQS2	11	ASVIPPARLFKAFVL	3324.1587	390	503	680	30	3.9	1634	2477	30	218
3.40	White oak	Que a 1	B6RQS2	16	PARLFKAFVLDSNDL	3324.1585	1005	1952	433	13	83	6.2	1094	14	502
3.40	White oak	Que a 1	B6RQS2	21	KAFVLDSNDLIPKVV	3324.1588	1174	1287	0.64	43	71	1.0	15	892	65

Supplemental Table 4. HLA class II binding patterns of prevalently re

Region ID	Organism	Source protein	Acc. no.	Pos	Sequence	Peptide ID	DRB1*1101	DRB1*1201	DRB1*1302	DRB1*1501	DRB1*1602	DRB3*0101	DRB3*0202	DRB4*0101	DRB5*0101
3.41	White oak	Que a 1	B6RQS2	141	ASEVFKAVEAYLVAH	3324.1584	61	485	70	4.0	15	253	8.8	576	36
4.06	Orchard grass	Dac g 1	Q7XAX7	181	PNYLALLVKYVDGDG	3324.0655	133	284	4777	82	177	34528	674	415	587
4.07	Orchard grass	Dac g 2	Q41183	11	GSDEKNLALSISKYK	3324.0657	452	1575	97	136	847	14129	1034	1803	1268
4.07	Orchard grass	Dac g 2	Q41183	16	NLALSIKYNKEGDSM	3324.0658	115	5675	116	487	1518	6679	4791	4795	3590
4.09	Orchard grass	Dac g 4	P82946	1	DIYNYMEPYVSKVDP	3324.0663	748	8160	6384	70	2529	26539	28096	17451	190
4.13	Rye grass	Lol p 1	P14946	176	KASNPNYLAILVKYV	3324.1135	46	165	5.8	3.4	99	1513	9.5	83	139
4.14	Rye grass	Lol p 11	Q7M1X5	111	RYANPIAFFRKEPLK	3324.1138	895	574	347	62	136	3842	2250	562	52
4.14	Rye grass	Lol p 11	Q7M1X5	116	IAFFRKEPLKECGGI	3337.0029	383	8867	1666	122	472	915	11381	1770	109
4.15	Rye grass	Lol p 2	P14947	51	DGVWEIKSDKPLKGP	3324.1139	11353	50000	101	2247	326	719	18619	6923	1638
4.15	Rye grass	Lol p 2	P14947	56	IKSDKPLKGFNFRF	3324.1140	18417	8883	178	1162	961	1470	1642	6585	33683
4.16	Rye grass	Lol p 2	P14947	76	MRNVFDDVVPADFVKV	3337.0030	11119	36345	1132	3375	6726	855	8286	7473	1392
4.17	Rye grass	Lol p 3	P14948	11	SDAKTLVLNIKYTRP	3324.1142	89	6223	410	2440	7796	22005	5168	2463	20103
4.18	Rye grass	Lol p 3	P14948	51	LWEVKSAKPLTGPMN	3337.0031	2649	14985	347	664	8426	24579	24793	31	792
4.19	Rye grass	Lol p 3	P14948	76	NVFDEVIPTAFTVYGK	3324.1141	23345	11051	3895	3693	6185	9896	5681	148	37968
4.25	Rye grass	Lol p 5 1	Q40237	71	LIEKINAGFKA AVAA	3324.1175	1833	4177	57	48	247	8694	126	907	10
4.29	Rye grass	Lol p 5 1	Q40237	151	DAYVATLREALRVIA	3324.1167	915	1302	12	387	273	223	52	342	200
4.29	Rye grass	Lol p 5 1	Q40237	156	TLTEALRVIAGTLEV	3324.1185	1724	1319	76	423	1068	4464	1511	429	3337
4.32	Rye grass	Lol p 5 1	Q40237	236	DSYKFIPTLVA AVKQ	3324.1165	23	8323	46	285	190	1680	8.8	1454	16
4.36	Rye grass	Lol p 5 1	Q40237	306	PAAAYATATPAAATA	3324.1184	250	50000	3198	1529	162	10938	183	320	75
4.37	Rye grass	Lol p 5 2	Q40240	181	AFKIAATAANAAPT	3324.1197	84	8528	2.7	96	28	17319	62	67	144
4.40	Canary grass	Pha a 1	Q41260	186	PNYLALLVKYVDGDG	3324.1428	165	269	144	92	196	5040	876	98	1102
4.43	Canary grass	Pha a 5	P56164	121	DAFIAALTEALRVIA	3324.1432	33	11	12	1.3	7.6	13	8.5	73	0.36
4.43	Canary grass	Pha a 5	P56164	126	ALTEALRVIAGAFEV	3324.1437	263	212	69	147	815	13812	27576	113	323
4.44	Canary grass	Pha a 5	P56164	166	AAFKIAATAANSAPA	3324.1441	14	2382	1.8	29	23	738	0.61	11	6.9
4.45	Canary grass	Pha a 5	P56164	181	NDKFTVFEGAFNKAI	3324.1442	723	9786	171	8.3	33	631	82	475	0.51
4.46	Canary grass	Pha a 5	P56164	201	GAYETYKFIPSLAAA	3324.1433	83	735	661	45	341	10888	125	992	74
4.46	Canary grass	Pha a 5	P56164	206	YKFIPSLAAVVKQAY	3324.1436	130	1030	704	685	71	1738	107	828	27
4.79	Kentucky blue grass	Poa p 1	Q9ZP03	121	EPIAAYHFDLSGKAF	3324.1556	588	704	1774	2.6	108	1.4	92	0.12	87
4.82	Kentucky blue grass	Poa p 5	Q9FFP0	51	QKLMEDINVGFKAAV	3324.1580	634	10790	5.1	44	156	4.7	41	82	561
4.82	Kentucky blue grass	Poa p 5	Q9FFP0	56	DINVGFKAAVAAAAG	3324.1571	619	7888	621	12	308	3192	864	796	111
4.82	Kentucky blue grass	Poa p 5	Q9FFP0	61	FKA AVAAAAGAPPAD	3324.1575	2286	7531	3458	519	334	14700	2418	3857	140
4.83	Kentucky blue grass	Poa p 5	Q9FFP0	121	ATPEAKFDSFVA AFT	3324.1570	13650	12428	109	67	875	2253	3475	85	683
4.84	Kentucky blue grass	Poa p 5	Q9FFP0	131	VAAFTALRRIAGVL	3324.1576	73	1212	262	436	734	17847	1590	73	2246
4.85	Kentucky blue grass	Poa p 5	Q9FFP0	176	AFKVAATAANAAPAN	3324.1578	325	13571	108	852	577	50000	95	374	460
4.86	Kentucky blue grass	Poa p 5	Q9FFP0	206	ESTGGAYDTYKSIPS	3324.1583	5761	50000	815	573	335	513	1381	11481	3460
4.86	Kentucky blue grass	Poa p 5	Q9FFP0	211	AYDITYKSIPSLAAV	3324.1579	29	19306	1894	61	5.7	7820	177	4373	104
4.87	Kentucky blue grass	Poa p 5	Q9FFP0	221	LEAAVKQAYAAATIAA	3324.1564	3363	5474	0.27	50	2335	356	1308	11	234
5.09	Russian thistle	Sal k 1 1	Q17ST3	191	EGTVDFIFGEARSLY	3324.1590	1641	772	258	18	1982	198	939	5972	114
5.11	Russian thistle	Sal k 1 1	Q17ST3	321	FITSLEYEAAKWLLP	3324.1589	1307	6237	62	544	5053	122	744	2140	164

Supplemental Table 4. HLA class II binding patterns of prevalently re

Region ID	Organism	Source protein	Acc. no.	Pos	Sequence	Peptide ID	DQB1*0201	DQB1*0202	DQB1*0301	DQB1*0302	DQB1*0402	DQB1*0501	DQB1*0502	DQB1*0503	DQB1*0602
1.01	Alt. rot fungus	Alt a 1	P79085	6	IASLFAAAGLAAAAP	3324.0015	4120	1055	2.8	3010	2402	24056	7019	7261	103
1.01	Alt. rot fungus	Alt a 1	P79085	11	AAAGLAAAAPLESRQ	3324.0017	1853	50000	1.2	393	118	50000	8005	223	21
1.02	Alt. rot fungus	Alt a 1	P79085	111	KVSDDDITVATATLP	3324.0013	123	8362	1144	2052	543	23106	25813	19392	2143
1.02	Alt. rot fungus	Alt a 1	P79085	116	ITYVATATLPNYCR	3324.0014	823	3845	59	764	170	17589	8971	14205	2232
1.03	Alt. rot fungus	Alt a 1	P79085	141	QGVADAYITLVTLPK	3324.0011	1812	31720	1315	1045	459	8010	6014	9102	4947
1.03	Alt. rot fungus	Alt a 1	P79085	143	VADAYITLVTLPKSS	3324.0016	570	7017	370	1743	1061	5103	7746	1117	70
1.08	Alt. rot fungus	Alt a 5	P42037	51	INELIASGSEKLASV	3324.0065	5008	6578	72	4893	1877	34647	25918	7535	302
1.12	Alt. rot fungus	Alt a 6	Q9HDT3	161	GGRLAFQEFMIVPCE	3324.0073	299	32061	710	564	1183	23	178	4943	1289
1.20	Alt. rot fungus	Alt a 7	P42058	190	AQGKAFYEAVAKAHQ	3324.0080	8948	50000	694	2674	1674	345	1365	157	2356
1.22	Alt. rot fungus	Alt a 7	P42058	6	AIVYYSMYGHKKMA	3324.0085	5789	6241	417	32021	50000	392	3255	1662	3352
1.32	<i>A. fumigatus</i>	Asp f 17	O60025	91	SKKDKFVAANAGGTV	3324.0212	5873	3328	16	2657	416	50000	1381	162	26891
1.38	<i>C. herbarum</i>	Cl a h 5	P42039	6	AFLLGLAGNSSPSA	3324.0576	3864	8356	12	11230	66	5484	718	557	792
1.41	<i>C. herbarum</i>	Cl a h 6	P42040	161	GGRLAFQEFMIVPSG	3324.0588	1989	50000	2502	2619	2807	68	4947	2437	1515
1.48	<i>C. herbarum</i>	Cl a h 8	PoCoY5	101	QIDAFIANAGATADS	3324.0601	482	3501	17	1024	57	11040	819	84	737
1.49	<i>C. herbarum</i>	Cl a h 8	PoCoY5	151	GTGSLVITASMSGHI	3324.0603	3922	114	31	11509	5287	6135	27045	13832	484
1.50	<i>C. herbarum</i>	Cl a h 8	PoCoY5	181	GCIHMARSLANEWRD	3324.0602	1048	301	41	1650	116	3078	673	649	174
1.51	<i>C. herbarum</i>	Cl a h 8	PoCoY5	236	KELKGAYVVFASDAS	3324.0598	306	1225	23	1472	781	1043	4672	518	12
1.54	<i>P. chrysogenum</i>	Pen ch 13	Q9URR2	101	PAVKYIEPDMIVNAT	3324.1304	47	283		822	1314	119	1961	1786	549
1.57	<i>P. chrysogenum</i>	Pen ch 13	Q9URR2	271	GIFLSVAAGNEAENA	3324.1303	121	4717	33	52	102	3957	50000	50000	370
1.63	<i>P. chrysogenum</i>	Pen ch 18	Q9P8G3	226	KFGVAKKANVYAVKV	3324.1330	994	9490	114	12547	1199	28997	10107	8157	1583
1.64	<i>P. chrysogenum</i>	Pen ch 18	Q9P8G3	291	LDLAVNAADVAGIHF	3324.1331	87	361	19	138	12	128	583	1149	480
2.15	Cat epithelia	Fel d 1 1	P30438	41	DEYVEQVQYKALPV	3324.1049	512	630	5346	1188	806	147	337	2523	140
2.15	Cat epithelia	Fel d 1 1	P30438	46	QVAQYKALPVVLENA	3324.1051	661	21374	5072	150	46	434	552	610	1596
2.16	Cat epithelia	Fel d 1 1	P30438	78	NALSVDLKIYTSPLC	3324.1050	2628	1593	6450	3675	611	687	3312	5835	1000
2.17	Cat epithelia	Fel d 1 2	P30440	21	AETCPIFYDVFVAFA	3324.1056	132	2101	108	209	75	36	464	263	2273
2.17	Cat epithelia	Fel d 1 2	P30440	26	IFYDVFVAANGNEL	3324.1052	198	28703	19	320	329	872	6652	8127	1134
2.18	Cat epithelia	Fel d 1 2	P30440	36	NGNELLLDLSLTKVN	3324.1055	2585	8017	3528	1981	3942	629	2865	9367	10904
2.30	<i>D. farinae</i>	Der f 1	A1YW11	131	GSCWAFSGVAATESA	3324.0670	97	5447	24	249	84	5340	9320	7931	1334
2.30	<i>D. farinae</i>	Der f 1	A1YW11	136	FSGVAATESAYLAYR	3324.0666	65	156	44	1137	76	3429	1209	4191	2016
2.56	<i>D. pteronyssinus</i>	Der p 1	P08176	131	SCWAFSGVAATESAY	3324.0832	92	21		61	34	6535	4402	8426	136
2.56	<i>D. pteronyssinus</i>	Der p 1	P08176	136	SGVAATESAYLAYRN	3324.0829	210	871		3429	2855	496	2997	5141	1136
2.57	<i>D. pteronyssinus</i>	Der p 1	P08176	176	RGIEYIQHNGVVQES	3324.0831	263	32412		1188	723	8536	1139	12278	859
2.58	<i>D. pteronyssinus</i>	Der p 1	P08176	226	REALAQTHSAIAVVI	3324.0840	536	629		1377	1848	436	2459	32124	291
2.73	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	86	NKAGVRIYVDIVLNH	3324.0981	2215	15466		1201	4845	54	4508	8099	5125
2.73	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	96	IVLNHMTGAQSGKGT	3324.0987	29771	50000		228	8351	3184	26479	50000	12133
2.75	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	251	IEFRFYKEITNVFRG	3324.0976	227	6202		531	2740	2505	668	5519	4366
2.77	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	321	AFMLAWNYGVPVMS	3324.0977	698	8364		8.6	2475	535	192	339	762
2.79	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	381	EHRWREIYNMVKFRM	3324.0986	3886	21738		10587	7236	39494	346	8936	4244
2.79	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	386	EIYNMVKFRMIAGQE	3324.0978	2104	29098		453	799	838	3705	26552	11155
2.80	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	411	YQIAFSRGNRAFI	3324.0980	164	8722		304	194	853	101	1406	12
2.80	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	416	SRGNRAFIINLQKN	3324.0974	364	7387		750	487	125	150	546	84
2.81	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	476	VVGHDEDFAVAYHI	3324.0975	113	8141		986	198	51	151	5043	1188
2.81	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	482	FDAFVAYHIGARIVS	3324.0971	2735	4750		56	3358	1265	219	666	1079
3.01	Alder	Aln g 1	P38948	11	PSVIPAARLFKAFIL	3324.0004	2592	11232		13	9502	3892	1218	325	1451
3.01	Alder	Aln g 1	P38948	16	AARLFKAFILDGDKL	3324.0003	123	4170		1739	916	426	60	827	910
3.02	Alder	Aln g 1	P38948	111	GGSILKISNKFHTKG	3324.0007	13610	50000		557	31293	50000	6829	397	5806
3.06	Birch	Bet v 1	O23754	96	LEKISNEIKIVATPD	3324.0353	67	8672		1337	832	2035	3613	5095	8893
3.07	Birch	Bet v 1	O23754	111	GGSILKISNKHHTKG	3324.0352	3537	5376		642	32210	18603	871	1033	6058
3.13	Birch	Bet v 6	Q9FUW6	206	RTLNKIVYIKPAKNI	3324.0387	1075	12465		1060	8820	1240	5585	1272	3461
3.13	Birch	Bet v 6	Q9FUW6	211	IVYIKPAKNIYSFNE	3324.0386	1867	1491		121	6361	2791	1876	5835	650
3.17	Cypress	Cha o 1	Q96385	86	ERSLWIIFSKNLNIK	3324.0517	3172	538		638	5593	27574	729	739	301
3.17	Cypress	Cha o 1	Q96385	96	NLNKLNMPLYIAGN	3324.0523	10464	39726		31919	50000	30440	6387	9115	10733
3.18	Cypress	Cha o 1	Q96385	211	NHFFNHHKVMLLGHS	3324.0521	7924	8395		3764	10232	17866	3978	5872	2358
3.21	Cypress	Cup a 1	Q9SCG9	66	KALWIIFSQNMNIKL	3324.0604	8265	36682		883	20699	28918	5797	50000	29047
3.21	Cypress	Cup a 1	Q9SCG9	71	IFSQNMNIKLMPLY	3324.0607	684	918		710	827	1043	4578	4714	4899
3.23	Cypress	Cup a 1	Q9SCG9	316	EDTNIYNSNEAFKVE	3324.0606	111	7541		1212	711	163	12904	2416	11286
3.24	Cypress	Cup s 1	Q9M4S2	86	EKALWIIFSQNMNIK	3324.0615	2962	5556		7955	7270	6143	888	12985	1930
3.24	Cypress	Cup s 1	Q9M4S2	91	IIFSQNMNIKLMPL	3324.0618	37377	24912		38760	50000	6739	25974	32436	35955
3.24	Cypress	Cup s 1	Q9M4S2	96	NMNIKLMPLYVAGH	3324.0624	50000	50000		3057	50000	27874	33698	20832	11703
3.26	Cypress	Cup s 1	Q9M4S2	211	NHFFNHHKVMLLGHD	3324.0616	7308	28117		2356	30130	35059	3323	4140	4158
3.40	White oak	Que a 1	B6RQS2	11	ASVIPPARLFKAFVL	3324.1587	2114	6727		38	4693	3295	1321	636	1948
3.40	White oak	Que a 1	B6RQS2	16	PARLFKAFVLDSDNL	3324.1585	12	310		1472	167	71	22	7.9	161
3.40	White oak	Que a 1	B6RQS2	21	KAFVLDSDNLPKVV	3324.1588	116	194		4575	3941	900	302	162	2639

Supplemental Table 4. HLA class II binding patterns of prevalently re

Region ID	Organism	Source protein	Acc. no.	Pos	Sequence	Peptide ID	DQB1*0201	DQB1*0202	DQB1*0301	DQB1*0302	DQB1*0402	DQB1*0501	DQB1*0502	DQB1*0503	DQB1*0602
3.41	White oak	Que a 1	B6RQS2	141	ASEVFKAVEAYLVAH	3324.1584	308	953	88	423	240	1252	5307	2036	183
4.06	Orchard grass	Dac g 1	Q7XAX7	181	PNYLALLVKYVDGDG	3324.0655	1131	3444	382	904	1191	629	2011	6210	330
4.07	Orchard grass	Dac g 2	Q41183	11	GSDEKNLALSISKYK	3324.0657	26713	7196	2419	9020	6027	30986	739	50000	130
4.07	Orchard grass	Dac g 2	Q41183	16	NLALSIKYNKEGDSM	3324.0658	1225	2121	6011	5470	2137	10389	3871	8965	258
4.09	Orchard grass	Dac g 4	P82946	1	DIYNYMEPYVSKVDP	3324.0663	4569	6212	9809	13492	3874	188	2016	981	12122
4.13	Rye grass	Lol p 1	P14946	176	KASNPNYLAILVKYV	3324.1135	1405	5443	805	5850	1810	627	1244	1316	667
4.14	Rye grass	Lol p 11	Q7M1X5	111	RYANPIAFFRKEPLK	3324.1138	4460	25959	5721	32683	5739	215	793	1597	9744
4.14	Rye grass	Lol p 11	Q7M1X5	116	IAFFRKEPLKECGGI	3337.0029	27269	26168	8997	50000	1829	50000	1441	903	50000
4.15	Rye grass	Lol p 2	P14947	51	DGVWEIKSDKPLKGP	3324.1139	1068	530	698	39629	9885	50000	9236	50000	26620
4.15	Rye grass	Lol p 2	P14947	56	IKSDKPLKGFNFRF	3324.1140	4976	2241	33901	50000	39533	8398	38172	50000	50000
4.16	Rye grass	Lol p 2	P14947	76	MRNVFDDVVPADFVKV	3337.0030	646	148	20336	50000	622	50000	61	347	39533
4.17	Rye grass	Lol p 3	P14948	11	SDAKTLVLNIKYTRP	3324.1142	19328	25717	26715	19079	10584	50000	50000	33924	28683
4.18	Rye grass	Lol p 3	P14948	51	LWEVKSAKPLTGPMN	3337.0031	4656	2441	48	50000	846	50000	2336	11264	3946
4.19	Rye grass	Lol p 3	P14948	76	NVFDEVIPTAFTYVK	3324.1141	1816	1696	10397	7083	1266	12367	17499	2899	50000
4.25	Rye grass	Lol p 5 1	Q40237	71	LIEKINAGFKA AVAA	3324.1175	3075	50000	20	454	215	83	430	147	24
4.29	Rye grass	Lol p 5 1	Q40237	151	DAYVATLTEALRVIA	3324.1167	707	1800	1118	543	125	50000	50000	50000	4717
4.29	Rye grass	Lol p 5 1	Q40237	156	TLTEALRVIA GTLEV	3324.1185	278	2248	132	854	40	6132	9812	4648	110
4.32	Rye grass	Lol p 5 1	Q40237	236	DSYKFIP TLVA AVK	3324.1165	943	5863	73	448	180	21294	50000	4637	962
4.36	Rye grass	Lol p 5 1	Q40237	306	PAAAYATATPAAATA	3324.1184	1766	679	3.8	700	102	11352	7446	1738	224
4.37	Rye grass	Lol p 5 2	Q40240	181	AFKIAATAANAAPT	3324.1197	431	2314	4.2	277	138	16916	21605	6721	31
4.40	Canary grass	Pha a 1	Q41260	186	PNYLALLVKYVDGDG	3324.1428	459	11971	1009	1243	2753	740	8618	50000	675
4.43	Canary grass	Pha a 5	P56164	121	DAFIAALTEALRVIA	3324.1432	97	2038	2.5	2.3	230	610	24876	50000	70
4.43	Canary grass	Pha a 5	P56164	126	ALTEALRVIA GAFEV	3324.1437	132	4668	75	189	151	4412	3107	181	23
4.44	Canary grass	Pha a 5	P56164	166	AAFKIAATAANSAPA	3324.1441	237	1172	7.1	457	83	3079	982	86	25
4.45	Canary grass	Pha a 5	P56164	181	NDKFTVFEGAFNKAI	3324.1442	2630	1194	211	2614	1302	3407	966	2540	429
4.46	Canary grass	Pha a 5	P56164	201	GAYETYKFIP SLEAA	3324.1433	515	163	81	72	36	191	70	358	846
4.46	Canary grass	Pha a 5	P56164	206	YKFIP SLEAAVKQAY	3324.1436	2114	2125	839	2370	640	9969	2647	1029	732
4.79	Kentucky blue grass	Poa p 1	Q9ZP03	121	EPIAAYHFDLSGKAF	3324.1556	580	2173	143	4634	274	563	680	79	3426
4.82	Kentucky blue grass	Poa p 5	Q9FFP0	51	QKLMEDINVGFKAAV	3324.1580	9101	8072	1567	2884	785	1009	3189	5214	1291
4.82	Kentucky blue grass	Poa p 5	Q9FFP0	56	DINVGFKAAVAAAAG	3324.1571	2268	9550	5.5	651	137	631	5410	663	34
4.82	Kentucky blue grass	Poa p 5	Q9FFP0	61	FKA AVAAAAGAPPAD	3324.1575	3690	25684	1.9	1153	322	11872	6782	1380	793
4.83	Kentucky blue grass	Poa p 5	Q9FFP0	121	ATPEAKFDSFVA AFT	3324.1570	1026	5123	628	197	24	2818	8000	910	3192
4.84	Kentucky blue grass	Poa p 5	Q9FFP0	131	VAAFTALRIAGVL	3324.1576	856	18825	844	11612	10345	1862	50000	10912	471
4.85	Kentucky blue grass	Poa p 5	Q9FFP0	176	AFKVAATAANAAPAN	3324.1578	1523	3198	32	2854	314	6808	50000	21644	144
4.86	Kentucky blue grass	Poa p 5	Q9FFP0	206	ESTGGAYDTYKSIPS	3324.1583	7961	2754	938	7772	4639	6583	18032	5811	1029
4.86	Kentucky blue grass	Poa p 5	Q9FFP0	211	AYDITYKSIP SLEAAV	3324.1579	1040	1496	407	183	44	5384	8336	5319	96
4.87	Kentucky blue grass	Poa p 5	Q9FFP0	221	LEAAVKQAYAAATIAA	3324.1564	1660	5850	38	1230	475	3581	10001	890	146
5.09	Russian thistle	Sal k 1 1	Q17ST3	191	EGTVDFIFGEARSLY	3324.1590	734	3116	46	952	412	2582	6849	2356	1337
5.11	Russian thistle	Sal k 1 1	Q17ST3	321	FITSLEYEAAKWLLP	3324.1589	412	2977	1933	6628	2521	6188	19481	16501	1296

Supplemental Table 4. HLA class II binding patterns of prevalently re

Region ID	Organism	Source protein	Acc. no.	Pos	Sequence	Peptide ID	DPB1*0101	DPB1*0201	DPB1*0301	DPB1*0401	DPB1*0402	DPB1*0501	DPB1*1401	DPB1*2001
1.01	Alt. rot fungus	Alt a 1	P79085	6	IASLFAAAAGLAAAAP	3324.0015	6156	2492	61	28038	582	3718	234	2089
1.01	Alt. rot fungus	Alt a 1	P79085	11	AAAGLAAAAPLESRQ	3324.0017	3370	357	71	40712	19838	463	125	184
1.02	Alt. rot fungus	Alt a 1	P79085	111	KVSDDDITYVATATLP	3324.0013	1768	18050	685	1614	3389	1286	4372	12845
1.02	Alt. rot fungus	Alt a 1	P79085	116	ITYVATATLPNYCRA	3324.0014	988	969	241	2994	2258	1867	1139	200
1.03	Alt. rot fungus	Alt a 1	P79085	141	QGVADAYITLVTLPK	3324.0011	444	7728	16881	2009	509	72	3388	8828
1.03	Alt. rot fungus	Alt a 1	P79085	143	VADAYITLVTLPKSS	3324.0016	40	11996	1124	2501	1065	7.1	1432	8647
1.08	Alt. rot fungus	Alt a 5	P42037	51	INELIASGSEKLASV	3324.0065	527	2734	3549	2738	1177	329	50	7505
1.12	Alt. rot fungus	Alt a 6	Q9HDT3	161	GGRLAFQEFMIVPCE	3324.0073	47	35	5073	51	69	477	3088	7642
1.20	Alt. rot fungus	Alt a 7	P42058	190	AQGKAFYEAVALAHQ	3324.0080	39	104	36	412	685	45	938	77
1.22	Alt. rot fungus	Alt a 7	P42058	6	AIVYYSMYGHKKMA	3324.0085	33	107	32	72	145	47	398	1294
1.32	<i>A. fumigatus</i>	Asp f 17	O60025	91	SKKDKFVAANAGGTV	3324.0212	22256	2956	1824	11512	50000	5627	7611	2587
1.38	<i>C. herbarum</i>	Cl a 5	P42039	6	AFLLGLAGNSSPSA	3324.0576	1437	112	406	1910	232	8188	4054	143
1.41	<i>C. herbarum</i>	Cl a 6	P42040	161	GGRLAFQEFMIVPSG	3324.0588	202	57	1091	37	268	83	9666	29599
1.48	<i>C. herbarum</i>	Cl a 8	PoCoY5	101	QIDAFIANAGATADS	3324.0601	6173	2559	8817	1880	19500	36023	1876	2378
1.49	<i>C. herbarum</i>	Cl a 8	PoCoY5	151	GTGSLVITASMSGHI	3324.0603	12974	26959	129	7104	10715	8303	36	1562
1.50	<i>C. herbarum</i>	Cl a 8	PoCoY5	181	GCIHMARSLANEWRD	3324.0602	5570	8054	695	21959	32474	6254	3885	1270
1.51	<i>C. herbarum</i>	Cl a 8	PoCoY5	236	KELKGAYVVFASDAS	3324.0598	181	57	1578	60	537	1556	2384	1247
1.54	<i>P. chrysogenum</i>	Pen ch 13	Q9URR2	101	PAVKYIEPDMIVNAT	3324.1304	234	1013	234	91	389	170	503	503
1.57	<i>P. chrysogenum</i>	Pen ch 13	Q9URR2	271	GIFLSVAAGNEAENA	3324.1303	549	108	5.0	204	3667	6490	70	146
1.63	<i>P. chrysogenum</i>	Pen ch 18	Q9P8G3	226	KFGVAKKANVYAVKV	3324.1330	1773	501	812	5008	4599	3553	50000	2723
1.64	<i>P. chrysogenum</i>	Pen ch 18	Q9P8G3	291	LDLAVNAADVAGIHF	3324.1331	6381	5052	273	9176	6632	8028	43033	5533
2.15	Cat epithelia	Fel d 1 1	P30438	41	DEYVEQVAQYKALPV	3324.1049	1670	1120	1036	533	26784	16357	1149	17743
2.15	Cat epithelia	Fel d 1 1	P30438	46	QVAQYKALPVVLENA	3324.1051	3517	1808	14	14857	20869	3802	65	806
2.16	Cat epithelia	Fel d 1 1	P30438	78	NALSVDLKIYTSPLC	3324.1050	251	575	3147	349	32	152	3094	1360
2.17	Cat epithelia	Fel d 1 2	P30440	21	AETCFPIFYDVFFAVA	3324.1056	3.1	8.1	1740	5.6	28	520	92	3965
2.17	Cat epithelia	Fel d 1 2	P30440	26	IFYDVFFAVANGNEL	3324.1052	3268	89	344	242	5175	5558	3247	1232
2.18	Cat epithelia	Fel d 1 2	P30440	36	NGNELLLDLSLTKVN	3324.1055	180	841	5014	590	844	57	1445	15456
2.30	<i>D. farinae</i>	Der f 1	A1YW11	131	GSCWAFSGVAATESA	3324.0670	9878	9311	18	14425	6224	17163	13775	396
2.30	<i>D. farinae</i>	Der f 1	A1YW11	136	FSGVAATESAYLAYR	3324.0666	8430	8262	276	1443	20587	8843	6182	1186
2.56	<i>D. pteronyssinus</i>	Der p 1	Po8176	131	SCWAFSGVAATESAY	3324.0832	1362	20	20	3908	9552	652	7.7	7.7
2.56	<i>D. pteronyssinus</i>	Der p 1	Po8176	136	SGVAATESAYLAYRN	3324.0829	1205	1601	1601	20081	4927	9417	449	449
2.57	<i>D. pteronyssinus</i>	Der p 1	Po8176	176	RGIEYIQHNGVVQES	3324.0831	1625	4341	4341	7397	35246	50000	726	726
2.58	<i>D. pteronyssinus</i>	Der p 1	Po8176	226	REALAQTHSAIAVII	3324.0840	232	1017	1017	32	3999	1219	310	310
2.73	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	86	NKAGVRIYVDIVLNH	3324.0981	258	220	2.5	2722	1368	1602	1317	17
2.73	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	96	IVLNHMTGAQSGKGT	3324.0987	15476	2227	505	16086	25757	3452	15612	2929
2.75	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	251	IEFRFYKEITNVFRG	3324.0976	419	35	123	3334	14	45	905	247
2.77	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	321	AFMLAWNYGPRVMS	3324.0977	1638	185	988	5157	907	5066	2674	1004
2.79	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	381	EHRWREIYNMVKFRM	3324.0986	324	109	92	549	3087	106	6551	585
2.79	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	386	EIYNMVKFRMIAQGE	3324.0978	583	5.3	4120	122	3322	2233	7868	9005
2.80	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	411	YQIAFSRGNRAFIAI	3324.0980	400	8.4	8.4	1514	1394	703	6.9	6.9
2.80	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	416	SRGNRAFIAINLQKN	3324.0974	9.1	7.2	0.67	37	15	13	4280	3.5
2.81	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	476	VYGHDEFDAFVAYHI	3324.0975	323	24	177	24	273	83	32	379
2.81	<i>D. pteronyssinus</i>	Der p 4	Q9Y197	482	FDAFVAYHIGARIVS	3324.0971	173	12	286	71	66	778	11410	509
3.01	Alder	Aln g 1	P38948	11	PSVIPAARLFKAFIL	3324.0004	85	63	820	7275	1500	493	38	1824
3.01	Alder	Aln g 1	P38948	16	AARLFKAFILDGDKL	3324.0003	388	36	1879	1810	8114	54	1021	2570
3.02	Alder	Aln g 1	P38948	111	GGSILKISKNFHTKGG	3324.0007	391	843	17488	18503	918	3.3	1042	50000
3.06	Birch	Bet v 1	O23754	96	LEKISNEIKIVATPD	3324.0353	4094	7568	5614	6815	2700	336	5983	5918
3.07	Birch	Bet v 1	O23754	111	GGSILKISKNYHTKGG	3324.0352	279	4651	12307	10528	1391	2.2	7590	12980
3.13	Birch	Bet v 6	Q9FUW6	206	RTLNKIVYIKPAKNI	3324.0387	128	70	0.039	41	92	157	3767	3.3
3.13	Birch	Bet v 6	Q9FUW6	211	IVYIKPAKNIYSFNE	3324.0386	1612	1352	5.1	5907	6715	1054	2923	178
3.17	Cypress	Cha o 1	Q96385	86	ERSLWIIFSKNLNIK	3324.0517	13	13	3.1	92	275	11	2884	83
3.17	Cypress	Cha o 1	Q96385	96	NLNKLNMPLYIAGN	3324.0523	1618	5002	96	11533	16167	7505	525	4965
3.18	Cypress	Cha o 1	Q96385	211	NHFFNHHKVMLLGHS	3324.0521	334	235	24	760	1461	599	3308	895
3.21	Cypress	Cup a 1	Q9SCG9	66	KALWIIFSQNMNIKL	3324.0604	6935	1199	1602	1734	12055	2370	29	23870
3.21	Cypress	Cup a 1	Q9SCG9	71	IFSQNMNIKLQMPLY	3324.0607	692	819	7136	4187	1207	748	3578	13550
3.23	Cypress	Cup a 1	Q9SCG9	316	EDTNIYNSNEAFKVE	3324.0606	8235	7270	39613	13781	18705	14225	155	25475
3.24	Cypress	Cup s 1	Q9M4S2	86	EKALWIIFSQNMNIKL	3324.0615	676	1062	1170	1538	4707	1147	3563	9177
3.24	Cypress	Cup s 1	Q9M4S2	91	IIFSQNMNIKLKMPL	3324.0618	806	304	50000	1594	75	179	6245	35360
3.24	Cypress	Cup s 1	Q9M4S2	96	NMNIKLKMPLYVAGH	3324.0624	2364	18	7024	2078	991	3307	6585	25735
3.26	Cypress	Cup s 1	Q9M4S2	211	NHFFNHHKVMLLGHD	3324.0616	104	92	6026	561	3137	633	2140	10277
3.40	White oak	Que a 1	B6RQS2	11	ASVIPPARLFKAFVL	3324.1587	114	328	328	1062	917	1062	341	3333
3.40	White oak	Que a 1	B6RQS2	16	PARLFKAFVLDSNDL	3324.1585	17	36	30	52	92	80	2136	274
3.40	White oak	Que a 1	B6RQS2	21	KAFVLDSNDLIPKVV	3324.1588	141	171	2489	111	97	242	4441	3488

Supplemental Table 4. HLA class II binding patterns of prevalently re

Region ID	Organism	Source protein	Acc. no.	Pos	Sequence	Peptide ID	DPB1*0101	DPB1*0201	DPB1*0301	DPB1*0401	DPB1*0402	DPB1*0501	DPB1*1401	DPB1*2001
3.41	White oak	Que a 1	B6RQS2	141	ASEVFKAVEAYLVAH	3324.1584	21	46	133	51	73	31	40	1305
4.06	Orchard grass	Dac g 1	Q7XAX7	181	PNYLALLVKYVDGDG	3324.0655	1656	279	50000	5690	666	500	7748	12339
4.07	Orchard grass	Dac g 2	Q41183	11	GSDEKNLALSISKYK	3324.0657	557	672	3068	2847	641	144	8095	6268
4.07	Orchard grass	Dac g 2	Q41183	16	NLALSIKYNKEGDSM	3324.0658	1351	2426	18010	3779	799	717	31957	21638
4.09	Orchard grass	Dac g 4	P82946	1	DIYNYMEPYVSKVDP	3324.0663	50000	50000	50000	23361	9581	1437	4557	50000
4.13	Rye grass	Lol p 1	P14946	176	KASNPNYLAILVKYV	3324.1135	114	103	2899	383	569	65	1052	13026
4.14	Rye grass	Lol p 11	Q7M1X5	111	RYANPIAFFRKEPLK	3324.1138	205	110	764	2058	849	0.25	1171	223
4.14	Rye grass	Lol p 11	Q7M1X5	116	IAFFRKEPLKECGGI	3337.0029	158	80	1407	53	786	51	18120	8.1
4.15	Rye grass	Lol p 2	P14947	51	DGVWEIKSDKPLKGP	3324.1139	18555	50000	1266	5209	50000	50000	1295	7941
4.15	Rye grass	Lol p 2	P14947	56	IKSDKPLKGFNFRF	3324.1140	469	9542	483	12300	19660	12418	560	5375
4.16	Rye grass	Lol p 2	P14947	76	MRNVFDDVVPADFVKV	3337.0030	4060	1987	685	2929	50000	2212	24225	82
4.17	Rye grass	Lol p 3	P14948	11	SDAKTLVLNLIKRYTP	3324.1142	1420	5439	11767	7261	11975	19	21639	23992
4.18	Rye grass	Lol p 3	P14948	51	LWEVKSARKPLTGPMN	3337.0031	12984	7712	6241	2618	26311	5538	18603	671
4.19	Rye grass	Lol p 3	P14948	76	NVFDEVIPTAFTVVK	3324.1141	6266	3859	5633	4342	30123	9031	16711	13196
4.25	Rye grass	Lol p 5 1	Q40237	71	LIEKINAGFKA AVAA	3324.1175	3337	251	339	18310	41527	258	2418	4991
4.29	Rye grass	Lol p 5 1	Q40237	151	DAYVATLREALRVIA	3324.1167	7236	707	78	515	41	76	4399	597
4.29	Rye grass	Lol p 5 1	Q40237	156	TLTEALRVIAGTLEV	3324.1185	121	3168	469	1615	1561	777	4125	4699
4.32	Rye grass	Lol p 5 1	Q40237	236	DSYKFIPTLVA AVKQ	3324.1165	79	69	2.5	86	34	6.9	4652	12
4.36	Rye grass	Lol p 5 1	Q40237	306	PAAAYATATPAAATA	3324.1184	5959	3491	81	21724	36457	12422	299	611
4.37	Rye grass	Lol p 5 2	Q40240	181	AFKIAATAANAAPT	3324.1197	2717	5456	0.78	8768	10255	44	0.70	2.1
4.40	Canary grass	Pha a 1	Q41260	186	PNYLALLVKYVDGDG	3324.1428	4818	119	8498	1760	1404	388	34437	50000
4.43	Canary grass	Pha a 5	P56164	121	DAFIAALTEALRVIA	3324.1432	7.9	7.4	275	8.0	3.0	20	29689	31
4.43	Canary grass	Pha a 5	P56164	126	ALTEALRVIAGAFEV	3324.1437	872	5184	387	849	3350	4358	9.6	1139
4.44	Canary grass	Pha a 5	P56164	166	AAFKIAATAANSAPA	3324.1441	675	181	0.84	3480	8061	103	1201	1.4
4.45	Canary grass	Pha a 5	P56164	181	NDKFTVFEGAFNKAI	3324.1442	613	28	22	177	4312	141	444	97
4.46	Canary grass	Pha a 5	P56164	201	GAYETYKFIPSL EAA	3324.1433	51	113	15	76	92	306	7.2	1266
4.46	Canary grass	Pha a 5	P56164	206	YKFIPSL EAAVKQAY	3324.1436	5958	272	38	1259	6874	22	285	1655
4.79	Kentucky blue grass	Poa p 1	Q9ZP03	121	EPIAAYHFDLSGKAF	3324.1556	2125	68	329	1331	5002	435	183	1038
4.82	Kentucky blue grass	Poa p 5	Q9FFP0	51	QKLMEDINVGFKA AV	3324.1580	787	160	595	1078	2614	15	69	2183
4.82	Kentucky blue grass	Poa p 5	Q9FFP0	56	DINVGFKA AVAAAAG	3324.1571	5339	1467	67	20678	50000	436	2.6	295
4.82	Kentucky blue grass	Poa p 5	Q9FFP0	61	FKA AVAAAAGAPPAD	3324.1575	24797	9228	39	28919	25866	2027	37	2935
4.83	Kentucky blue grass	Poa p 5	Q9FFP0	121	ATPEAKFDSFVA AFT	3324.1570	3256	2266	882	4846	20193	7.4	2772	3237
4.84	Kentucky blue grass	Poa p 5	Q9FFP0	131	VAAFTALRRIAGVL	3324.1576	1518	1560	945	982	995	800	12	5142
4.85	Kentucky blue grass	Poa p 5	Q9FFP0	176	AFKVAATAANAAPAN	3324.1578	675	1386	6.8	854	1593	297	297	13
4.86	Kentucky blue grass	Poa p 5	Q9FFP0	206	ESTGGAYDTYKSIPS	3324.1583	566	941	3829	370	8774	1112	75	4830
4.86	Kentucky blue grass	Poa p 5	Q9FFP0	211	AYDTYKSIPSL EAAV	3324.1579	67	894	21	803	1132	496	485	352
4.87	Kentucky blue grass	Poa p 5	Q9FFP0	221	LEAAVKQAYAAATIAA	3324.1564	3569	1147	7.6	1071	5202	891	2003	84
5.09	Russian thistle	Sal k 1 1	Q17ST3	191	EGTVDFIFGEARSLY	3324.1590	922	495	451	2043	2663	1311	1918	558
5.11	Russian thistle	Sal k 1 1	Q17ST3	321	FITSLEYIEAAKWLLP	3324.1589	56	1782	438	568	1338	275	229	4884