

# Official list of allergens

## I.U.I.S. Allergen Nomenclature Sub-Committee

2004.03.12

Species	allergen	biochemical designation	MW kDa SDS-PAGE	C: cDNA P: peptide	Reference Accession number
<b>A. Weeds</b>					
<b>Asterales</b>					
<i>Ambrosia artemisiifolia</i>					
short ragweed	Amb a 1	antigen E	38	C	8, 20
	Amb a 2	antigen K	38	C	8, 21
	Amb a 3	Ra3	11	C	22
	Amb a 5	Ra5	5	C	11, 23
	Amb a 6	Ra6	10	C	24, 25
	Amb a 7	Ra7	12	P	26
<i>Ambrosia trifida</i>					
giant ragweed	Amb t 5	Ra5G	4.4	C	9, 10, 27
<i>Artemisia vulgaris</i>					
mugwort	Art v 1		27-29	C	28
	Art v 2		35	P	28A
	Art v 3	lipid transfer protein	12	P	53
	Art v 4	profilin	14	C	29
<i>Helianthus annuus</i>					
sunflower	Hel a 1		34		29A
	Hel a 2	profilin	15.7	C	Y15210
<i>Mercurialis annua</i>					
	Mer a 1	profilin	14-15	C	Y13271
<b>Caryophyllales</b>					
<i>Chenopodium album</i>					
lamb's-quarters, pigweed,	Che a 1		17	C	AY049012, 29B
white goosefoot	Che a 2	profilin	14	C	AY082337
	Che a 3	polcalcin	10	C	AY082338
<i>Salsola kali</i>					
Russian-thistle	Sal k 1		43	P	29C
<b>Rosales</b>					
<i>Parietaria judaica</i>					
	Par j 1	lipid transfer protein 1	15	C	see list of isoallergens
	Par j 2	lipid transfer protein 2		C	see list of isoallergens
	Par j 3	profilin		C	see list of isoallergens
<i>Parietaria officinalis</i>					
	Par o 1	lipid transfer protein	15		29D
2004.03.15	Jørgen Nedergaard Larsen			jnl@dk.alk-abello.com	
	http://www.allergen.org				

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<b>B. Grasses</b>					
<b>Poales</b>					
<i>Cynodon dactylon</i>					
Bermuda grass	Cyn d 1		32	C	30, S83343
	Cyn d 7			C	31, X91256
	Cyn d 12	profilin	14	C	31a, Y08390
	Cyn d 15		9	C	AF517686
	Cyn d 22w	enolase	data		pending
	Cyn d 23	Cyn d 14	9	C	AF517685
	Cyn d 24	Pathogenesis- related p.	21	P	pending
<i>Dactylis glomerata</i>					
orchard grass	Dac g 1	AgDg1	32	P	32
	Dac g 2		11	C	33, S45354
	Dac g 3			C	33A, U25343
	Dac g 5		31	P	34
<i>Festuca pratensis</i>					
meadow fescue	Fes p 4w		60	-	
<i>Holcus lanatus</i>					
velvet grass	Hol l 1			C	Z27084
<i>Lolium perenne</i>					
rye grass	Lol p 1	group I	27	C	35, 36
	Lol p 2	group II	11	P	37, 37A, X73363
	Lol p 3	group III	11	P	38
	Lol p 5	Lol p IX, Lol p Ib	31/35	C	34, 39
	Lol p 11	hom: trypsin inhibitor	16		39A
<i>Phalaris aquatica</i>					
canary grass	Pha a 1			C	40, S80654
<i>Phleum pratense</i>					
timothy	Phl p 1		27	C	X78813
	Phl p 2			C	X75925, 41
	Phl p 4			P	41A
	Phl p 5	Ag25	32	C	42
	Phl p 6			C	Z27082, 43
	Phl p 11	trypsin inhibitor hom.	20	C	AF521563, 43A
	Phl p 12	profilin		C	X77583, 44
	Phl p 13	polygalacturonase	55-60	C	AJ238848
<i>Poa pratensis</i>					
Kentucky blue grass	Poa p 1	group I	33	P	46
	Poa p 5		31/34	C	34, 47
<i>Sorghum halepense</i>					

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Johnson grass	Sor h 1			C	48
<b>C. Trees</b>					
<b>Arecales</b>					
<i>Phoenix dactylifera</i>					
date palm	Pho d 2	profilin	14.3	C	Asturias p.c.
<b>Fagales</b>					
<i>Alnus glutinosa</i>					
alder	Aln g 1		17	C	S50892
<i>Betula verrucosa</i>					
birch	Bet v 1		17	C	see list of isoallergens
	Bet v 2	profilin	15	C	M65179
	Bet v 3			C	X79267
	Bet v 4		8	C	X87153, S54819
	Bet v 6	h: isoflavone reductase	33.5	C	see list of isoallergens
	Bet v 7	cyclophilin	18	P	P81531
	<i>Carpinus betulus</i>				
hornbeam	Car b 1		17	C	see list of isoallergens
<i>Castanea sativa</i>					
chestnut	Cas s 1		22	P	52
	Cas s 5	chitinase			
	Cas s 8	lipid transfer protein	9.7	P	53
<i>Corylus avellana</i>					
hazel	Cor a 1		17	C	see list of isoallergens
	Cor a 2	profilin	14	C	
	Cor a 8	lipid transfer protein	9	C	
	Cor a 9	11S globulin-like protein	40/?	C	Beyer p.c.
	Cor a 10	luminal binding prot.	70	C	AJ295617
	Cor a 11	7S vicilin-like prot.	48	C	AF441864
<i>Quercus alba</i>					
White oak	Que a 1		17	P	54
<b>Lamiales</b>					
<b>Oleaceae</b>					
<i>Fraxinus excelsior</i>					
ash	Fra e 1		20	P	58A
<i>Ligustrum vulgare</i>					

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			SDS-PAGE		
privet <i>Olea europea</i>	Lig v 1		20	P	58A
olive	Ole e 1		16	C	59, 60
	Ole e 2	profilin	15-18	C	60A
	Ole e 3		9.2		60B
	Ole e 4		32	P	P80741
	Ole e 5	superoxide dismutase	16	P	P80740
	Ole e 6		10	C	60C, U86342
	Ole e 7		?	P	60D, P81430
	Ole e 8	Ca <sup>2+</sup> -binding protein	21	C	60E, AF078679
	Ole e 9	beta-1,3-glucanase	46	C	AF249675
<i>Syringa vulgaris</i>					
lilac	Syr v 1		20	P	58A
Plantaginaceae					
<i>Plantago lanceolata</i>					
English plantain	Pla l 1		18	P	P842242
<b>Pinales</b>					
<i>Cryptomeria japonica</i>					
sugi	Cry j 1		41-45	C	55, 56
	Cry j 2			C	57, D29772
<i>Cupressus arizonica</i>					
cypress	Cup a 1		43	C	A1243570
<i>Cupressus sempervirens</i>					
common cypress	Cup s 1		43	C	see list of isoallergens
	Cup s 3w		34	C	ref pending
<i>Juniperus ashei</i>					
mountain cedar	Jun a 1		43	P	P81294
	Jun a 2			C	57A, AJ404653
	Jun a 3		30	P	57B, P81295
<i>Juniperus oxycedrus</i>					
prickly juniper	Jun o 4	hom: calmodulin	29	C	57C, AF031471
<i>Juniperus sabinoides</i>					
mountain cedar	Jun s 1		50	P	58
<i>Juniperus virginiana</i>					
eastern red cedar	Jun v 1		43	P	P81825, 58B

**Platanaceae**

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<i>Platanus acerifolia</i>					
London plane tree	Pla a 1		18	P	P82817
	Pla a 2		43	P	P82967
	Pla a 3	lipid transfer protein	10	P	Iris p.c.
D. Mites					
<i>Acarus siro</i>					
mite	Aca s 13	arthropod fatty acid binding prot.	14*	C	AJ006774
<i>Blomia tropicalis</i>					
mite	Blo t 1	cysteine protease	39	C	AF277840
	Blo t 3	trypsin	24*	C	Cheong p.c.
	Blo t 4	alpha amylase	56	C	Cheong p.c.
	Blo t 5			C	U59102
	Blo t 6	chymotrypsin	25	C	Cheong p.c.
	Blo t 10	tropomyosin	33	C	61
	Blo t 11	paramyosin	110	C	AF525465, 61A
	Blo t 12	Bt1 1a		C	U27479
	Blo t 13	Bt6, fatty acid bind prot.		C	U58106
	Blo t 19	anti-microbial pep. hom.	7.2	C	Cheong p.c.
<i>Dermatophagoides farinae</i>					
American house dust mite	Der f 1	cysteine protease	25	C	69
	Der f 2		14	C	70, 70A
	Der f 3	trypsin	30	C	63
	Der f 7		24-31	C	SW:Q26456, 71
	Der f 10	tropomyosin		C	72
	Der f 11	paramyosin	98	C	72A
	Der f 14	mag3, apolipoporphin		C	D17686
	Der f 15	98k chitinase	98	C	AF178772
	Der f 16	gelsolin/villin	53	C	71A
	Der f 17	Ca binding EF protein	53	C	71A
	Der f 18w	60k chitinase	60	C	Weber p.c.
<i>Dermatophagoides microceras</i>					
house dust mite	Der m 1	cysteine protease	25	P	68
<i>Dermatophagoides pteronyssinus</i>					
European house dust mite	Der p 1	antigen P1, cysteine protease	25	C	62, U11695
	Der p 2		14	C	62A, AF276239
	Der p 3	trypsin	28/30	C	63
	Der p 4	amylase	60	P	64
	Der p 5		14	C	65
	Der p 6	chymotrypsin	25	P	66

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	Der p 7		22/28	C	67
	Der p 8	glutathione transferase		C	67A
	Der p 9	collagenolytic serine pro.		P	67B
	Der p 10	tropomyosin	36	C	Y14906
	Der p 14	apolipophorin like prot.		C	Epton p.c.
<i>Euroglyphus maynei</i> mite	Eur m 2			C	see list of isoallergens
	Eur m 14	apolipophorin	177	C	AF149827
<i>Glycyphagus domesticus</i> storage mite	Gly d 2			C	72B, see isoallergen list
<i>Lepidoglyphus destructor</i> storage mite	Lep d 2	Lep d 1	15	C	73, 74, 75, see isoallergen list
	Lep d 5			C	75A, AJ250278
	Lep d 7			C	75A, AJ271058
	Lep d 10	tropomyosin		C	AJ250096
	Lep d 13			C	75A, AJ250279
<i>Tyrophagus putrescentiae</i> storage mite	Tyr p 2			C	75B, Y12690
E. Animals					
<i>Bos domesticus</i> domestic cattle (see also foods)	Bos d 2	Ag3, lipocalin	20	C	76, see isoallergen list
	Bos d 3	Ca-binding S100 hom.	11	C	L39834
	Bos d 4	alpha-lactalbumin	14.2	C	M18780
	Bos d 5	beta-lactoglobulin	18.3	C	X14712
	Bos d 6	serum albumin	67	C	M73993
	Bos d 7	immunoglobulin	160		77
	Bos d 8	caseins	20-30		77
<i>Canis familiaris</i> ( <i>Canis domesticus</i> ) dog	Can f 1		25	C	78, 79
	Can f 2		27	C	78, 79
	Can f 3	albumin		C	S72946
	Can f 4		18	P	ref pending
<i>Equus caballus</i> domestic horse	Equ c 1	lipocalin	25	C	U70823
	Equ c 2	lipocalin	18.5	P	79A, 79B
	Equ c 3	Ag3 - albumin	67	C	79C, X74045
	Equ c 4		17	P	79D
	Equ c 5	AgX	17	P	Goubran Botros p.c.

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<i>Felis domesticus</i>					
cat (saliva)	Fel d 1	cat-1	38	C	15
	Fel d 2	albumin		C	79E, X84842
	Fel d 3	cystatin	11	C	79F, AF238996
	Fel d 4	lipocalin	22	C	AY497902
	Fel d 5w	immunoglobulin A	400		Adedoyin p.c.
	Fel d 6w	immunoglobulin M	800-1000		Adedoyin p.c.
	Fel d 7w	immunoglobulin G	150		Adedoyin p.c.
<i>Cavia porcellus</i>					
guinea pig	Cav p 1	lipocalin homologue	20	P	SW:P83507, 80
	Cav p 2		17	P	SW:P83508
<i>Mus musculus</i>					
mouse (urine)	Mus m 1	MUP	19	C	81, 81A
<i>Rattus norvegicus</i>					
rat (urine)	Rat n 1		17	C	82, 83

F. Fungi (moulds)

**1. Ascomycota**

1.1 Dothideales

*Alternaria alternata*

Alt a 1		28	C	U82633
Alt a 2		25	C	83A, U62442
Alt a 3	heat shock prot. 70		C	U87807, U87808
Alt a 4	prot. disulfideisomerase	57	C	X84217
Alt a 6	acid ribosomal prot. P2	11	C	X78222, U87806
Alt a 7	YCP4 protein	22	C	X78225
Alt a 10	aldehyde dehydrogenase	53	C	X78227, P42041
Alt a 11	enolase	45	C	U82437
Alt a 12	acid ribosomal prot. P1	11	C	X84216

*Cladosporium herbarum*

Cla h 1		13		83B, 83C
Cla h 2		23		83B, 83C
Cla h 3	aldehyde dehydrogenase	53	C	X78228
Cla h 4	acid ribosomal prot. P2	11	C	X78223
Cla h 5	YCP4 protein	22	C	X78224
Cla h 6	enolase	46	C	X78226
Cla h 12	acid ribosomal prot. P1	11	C	X85180

1.2 Eurotiales

*Aspergillus flavus*

Asp fl 13	alkaline serine protease	34		84
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Species	allergen	biochemical designation	MW kDa	C: cDNA P: peptide	Reference Accession number
			SDS-PAGE		
<i>Aspergillus fumigatus</i>					
	Asp f 1		18	C	M83781, S39330
	Asp f 2		37	C	U56938
	Asp f 3	peroxisomal protein	19	C	U20722
	Asp f 4		30	C	AJ001732
	Asp f 5	metalloprotease	40	C	Z30424
	Asp f 6	Mn superoxide dismut.	26.5	C	U53561
	Asp f 7		12	C	AJ223315
	Asp f 8	ribosomal prot. P2	11	C	AJ224333
	Asp f 9		34	C	AJ223327
	Asp f 10	aspartic protease	34	C	X85092
	Asp f 11	peptidyl-prolyl isomeras	24		84A
	Asp f 12	heat shock prot. P90	90	C	85
	Asp f 13	alkaline serine protease	34		84B
	Asp f 15		16	C	AJ002026
	Asp f 16		43	C	g3643813
	Asp f 17			C	AJ224865
	Asp f 18	vacuolar serine protease	34		84C
	Asp f 22w	enolase	46	C	AF284645
	Asp f 23	L3 ribosomal protein	44	C	85A, AF464911
<i>Aspergillus niger</i>					
	Asp n 14	beta-xylosidase	105	C	AF108944
	Asp n 18	vacuolar serine protease	34	C	84B
	Asp n ?		85	C	Z84377
<i>Aspergillus oryzae</i>					
	Asp o 13	alkaline serine protease	34	C	X17561
	Asp o 21	TAKA-amylase A	53	C	D00434, M33218
<i>Penicillium brevicompactum</i>					
	Pen b 13	alkaline serine protease	33		86A
<i>Penicillium chrysogenum</i> (formerly <i>P. notatum</i> )					
	Pen ch 13	alkaline serine protease	34		87
	Pen ch 18	vacuolar serine protease	32		87
	Pen ch 20	N-acetyl glucosaminidas	68		87A
<i>Penicillium citrinum</i>					
	Pen c 3	peroxisomal mem. prot.	18		86B
	Pen c 13	alkaline serine protease	33		86A
	Pen c 19	heat shock prot. P70	70	C	U64207
	Pen c 22w	enolase	46	C	AF254643
	Pen c 24	elongation factor 1 beta		C	AY363911
<i>Penicillium oxalicum</i>					
	Pen o 18	vacuolar serine protease	34		87B



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<b>1.3 Hypocreales</b>					
<i>Fusarium culmorum</i>					
	Fus c 1	ribosomal prot. P2	11*	C	AY077706
	Fus c 2	thioredoxin-like prot.	13*	C	AY077707
<b>1.4 Onygenales</b>					
<i>Trichophyton rubrum</i>					
	Tri r 2			C	88
	Tri r 4	serine protease		C	88
<i>Trichophyton tonsurans</i>					
	Tri t 1		30	P	88A
	Tri t 4	serine protease	83	C	88
<b>1.5 Saccharomycetales</b>					
<i>Candida albicans</i>					
	Cand a 1		40	C	89
	Cand a 3	peroxisomal protein	29	C	AY136739
<i>Candida boidinii</i>					
	Cand b 2		20	C	J04984, J04985
<b>2. Basidiomycotina</b>					
<b>2.1 Hymenomycetes</b>					
<i>Psilocybe cubensis</i>					
	Psi c 1				
	Psi c 2	cyclophilin	16		89A
<i>Coprinus comatus</i> shaggy cap					
	Cop c 1	leucine zipper protein	11	C	AJ132235
	Cop c 2				AJ242791
	Cop c 3				AJ242792
	Cop c 5				AJ242793
	Cop c 7				AJ242794
<b>2.2 Urediniomycetes</b>					
<i>Rhodotorula mucilaginosa</i>					
	Rho m 1	enolase	47	C	89B

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<b>2.3 Ustilaginomycetes</b>					
<i>Malassezia furfur</i>					
	Mala f 2	MF1, peroxisomal membrane protein	21	C	AB011804, 90
	Mala f 3	MF2, peroxisomal membrane protein	20	C	AB011805, 90
	Mala f 4	mitochondrial malate dehydrogenase	35	C	AF084828, 90A
<i>Malassezia sympodialis</i>					
	Mala s 1			C	X96486, 91
	Mala s 5		18*	C	AJ011955
	Mala s 6		17*	C	AJ011956
	Mala s 7			C	AJ011957, 91A
	Mala s 8		19*	C	AJ011958, 91A
	Mala s 9		37*	C	AJ011959, 91A
	Mala s 10	heat shock prot. 70	86	C	AJ428052
	Mala s 11	Mn superoxide dismut.	23	C	AJ548421
<b>3. Deuteromycotina</b>					
3.1 Tuberculariales					
<i>Epicoccum purpurascens</i> (formerly <i>E. nigrum</i> )					
	Epi p 1	serine protease	30	P	SW:P83340, 91B
<b>G. Insects</b>					
<i>Aedes aegyptii</i> mosquito					
	Aed a 1	apyrase	68	C	L12389
	Aed a 2		37	C	M33157
<i>Apis mellifera</i> honey bee					
	Api m 1	phospholipase A2	16	C	92
	Api m 2	hyaluronidase	44	C	93
	Api m 4	melittin	3	C	94
	Api m 6		7-8	P	Kettner p.c.
	Api m 7	CUB serine protease	39	C	AY127579
<i>Bombus pennsylvanicus</i> bumble bee					
	Bom p 1	phospholipase	16	P	95
	Bom p 4	protease		P	95
<i>Blattella germanica</i> German cockroach					
	Bla g 1	Bd90k		C	
	Bla g 2	aspartic protease	36	C	96
	Bla g 4	calycin	21	C	97

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	Bla g 5	glutathione transferase	22	C	98
	Bla g 6	troponin C	27	C	98
<i>Periplaneta americana</i>					
American cockroach	Per a 1	Cr-PII		C	
	Per a 3	Cr-PI	72-78	C	98A
	Per a 7	tropomyosin	37	C	Y14854
<i>Chironomus kiiensis</i>					
midge	Chi k 10	tropomyosin	32.5*	C	AJ012184
<i>Chironomus thummi thummi</i>					
midge	Chi t 1-9	hemoglobin	16	C	99
	Chi t 1.01	component III	16	C	P02229
	Chi t 1.02	component IV	16	C	P02230
	Chi t 2.0101	component I	16	C	P02221
	Chi t 2.0102	component IA	16	C	P02221
	Chi t 3	component II-beta	16	C	P02222
	Chi t 4	component IIIA	16	C	P02231
	Chi t 5	component VI	16	C	P02224
	Chi t 6.01	component VIIA	16	C	P02226
	Chi t 6.02	component IX	16	C	P02223
	Chi t 7	component VIIB	16	C	P02225
	Chi t 8	component VIII	16	C	P02227
	Chi t 9	component X	16	C	P02228
<i>Ctenocephalides felis felis</i>					
cat flea	Cte f 1				
	Cte f 2	M1b	27	C	AF231352
	Cte f 3		25	C	
<i>Thaumetopoea pityocampa</i>					
pine processionary moth	Tha p 1		15	P	PIR:A59396, 99A
<i>Dolichovespula maculata</i>					
white face hornet	Dol m 1	phospholipase A1	35	C	100
	Dol m 2	hyaluronidase	44	C	101
	Dol m 5	antigen 5	23	C	102, 103
<i>Dolichovespula arenaria</i>					
yellow hornet	Dol a 5	antigen 5	23	C	104
<i>Polistes annularis</i>					
wasp	Pol a 1	phospholipase A1	35	P	105
	Pol a 2	hyaluronidase	44	P	105
	Pol a 5	antigen 5	23	C	104
<i>Polistes dominulus</i>					
Mediterranean paper wasp	Pol d 1				Hoffman p.c.
	Pol d 4	serine protease	32-34	C	Hoffman p.c.
	Pol d 5				P81656

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<i>Polistes exclamans</i>					
wasp	Pol e 1	phospholipase A1	34	P	107
	Pol e 5	antigen 5	23	C	104
<i>Polistes fuscatus</i>					
wasp	Pol f 5	antigen 5	23	C	106
<i>Polistes gallicus</i>					
wasp	Pol g 5	antigen 5	24	C	P83377
<i>Polistes metricus</i>					
wasp	Pol m 5	antigen 5	23	C	106
<i>Vespa crabo</i>					
European hornet	Vesp c 1	phospholipase	34	P	107
	Vesp c 5	antigen 5	23	C	106
<i>Vespa mandarina</i>					
giant asian hornet	Vesp m 1				Hoffman p.c.
	Vesp m 5				P81657
<i>Vespula flavopilosa</i>					
yellowjacket	Ves f 5	antigen 5	23	C	106
<i>Vespula germanica</i>					
yellowjacket	Ves g 5	antigen 5	23	C	106
<i>Vespula maculifrons</i>					
yellowjacket	Ves m 1	phospholipase A1	33.5	C	108
	Ves m 2	hyaluronidase	44	P	109
	Ves m 5	antigen 5	23	C	104
<i>Vespula pennsylvanica</i>					
yellowjacket	Ves p 5	antigen 5	23	C	106
<i>Vespula squamosa</i>					
yellowjacket	Ves s 5	antigen 5	23	C	106
<i>Vespula vidua</i>					
wasp	Ves vi 5	antigen 5	23	C	106
<i>Vespula vulgaris</i>					
yellowjacket	Ves v 1	phospholipase A1	35	C	105A
	Ves v 2	hyaluronidase	44	P	105A
	Ves v 5	antigen 5	23	C	104
<i>Myrmecia pilosula</i>					
Australian jumper ant	Myr p 1			C	X70256
	Myr p 2			C	S81785
<i>Solenopsis geminata</i>					
tropical fire ant	Sol g 2				Hoffman p.c.
	Sol g 4				Hoffman p.c.
<i>Solenopsis invicta</i>					
fire ant	Sol i 2		13	C	110, 111
	Sol i 3		24	C	110

Species	allergen	biochemical designation	MW kDa	C: cDNA P: peptide	Reference Accession number
	Sol i 4		13	C	110
<i>Solenopsis saevissima</i>					
Brazilian fire ant	Sol s 2				Hoffman p.c.
<i>Triatoma protracta</i>					
California kissing bug	Tria p 1	Procalin	20	C	AF179004, 111A.

#### H. Foods

<i>Gadus callarias</i>					
cod	Gad c 1	allergen M	12	C	112, 113
<i>Salmo salar</i>					
Atlantic salmon	Sal s 1	parvalbumin	12	C	X97824
<i>Bos domesticus</i>					
domestic cattle	Bos d 4	alpha-lactalbumin	14.2	C	M18780
(milk)	Bos d 5	beta-lactoglobulin	18.3	C	X14712
see also animals	Bos d 6	serum albumin	67	C	M73993
	Bos d 7	immunoglobulin	160		77
	Bos d 8	caseins	20-30		77
<i>Gallus domesticus</i>					
chicken	Gal d 1	ovomuroid	28	C	114, 115
	Gal d 2	ovalbumin	44	C	114, 115
	Gal d 3	Ag22, conalbumin	78	C	114, 115
	Gal d 4	lysozyme	14	C	114, 115
	Gal d 5	serum albumin	69	C	X60688
<i>Metapenaeus ensis</i>					
shrimp	Met e 1	tropomyosin		C	U08008
<i>Penaeus aztecus</i>					
shrimp	Pen a 1	tropomyosin	36	P	116
<i>Penaeus indicus</i>					
shrimp	Pen i 1	tropomyosin	34	C	116A
<i>Penaeus monodon</i>					
black tiger shrimp	Pen m 1	tropomyosin	38	C	
	Pen m 2	arginine kinase	40	C	AF479772, 117
<i>Todarodes pacificus</i>					
squid	Tod p 1	tropomyosin	38	P	117A
<i>Helix aspersa</i>					
brown garden snail	Hel as 1	tropomyosin	36	C	Y14855, 117B
<i>Haliotis midae</i>					
abalone	Hal m 1		49		117C
<i>Brassica juncea</i>					
oriental mustard	Bra j 1	2S albumin	14	C	118

Species	allergen	biochemical designation	MW kDa SDS-PAGE	C: cDNA P: peptide	Reference Accession number
<i>Brassica napus</i> rapeseed	Bra n 1	2S albumin	15	P	118A, P80208
<i>Brassica rapa</i> turnip	Bra r 2	hom: prohevein	25		P81729
<i>Hordeum vulgare</i> barley	Hor v 15	BMAI-1	15	C	119
	Hor v 16	alpha-amylase			
	Hor v 17	beta-amylase			
	Hor v 21	gamma-3 hordein	34	C	119A, SW:P80198
<i>Secale cereale</i> rye	Sec c 20	secalin			see isoall. list
<i>Triticum aestivum</i> wheat	Tri a 18	agglutinin			
	Tri a 19	omega-5 gliadin	65	P	PIR:A59156
<i>Zea mays</i> maize, corn	Zea m 14	lipid transfer prot.	9	P	P19656
<i>Oryza sativa</i> rice	Ory s 1			C	119B, U31771
<i>Apium graveolens</i> celery	Api g 1	hom: Bet v 1	16*	C	Z48967
	Api g 4	profilin			AF129423
	Api g 5		55/58	P	P81943
<i>Daucus carota</i> carrot	Dau c 1	hom: Bet v 1	16	C	117D, see isoallergen list
	Dau c 4	profilin		C	AF456482
<i>Corylus avellana</i> hazelnut	Cor a 1.04	hom: Bet v 1	17	C	see list of isoallergens
	Cor a 2	profilin	14	C	AF327622
	Cor a 8	lipid transfer protein	9	C	AF329829
<i>Malus domestica</i> apple	Mal d 1	hom: Bet v 1		C	X83672
	Mal d 2	hom: thaumatin		C	AJ243427
	Mal d 3	lipid transfer protein	9	C	Pastorello p.c.
<i>Pyrus communis</i> pear	Pyr c 1	hom: Bet v 1	18	C	AF05730
	Pyr c 4	profilin	14	C	AF129424
	Pyr c 5	hom: isoflavone reductas	33.5	C	AF071477
<i>Persea americana</i> avocado	Pers a 1	endochitinase	32	C	Z78202
<i>Prunus armeniaca</i> apricot	Pru ar 1	hom: Bet v 1		C	U93165

Species	allergen	biochemical designation	MW kDa	C: cDNA P: peptide	Reference Accession number
			SDS-PAGE		
	Pru ar 3	lipid transfer protein	9	P	
<i>Prunus avium</i>					
sweet cherry	Pru av 1	hom: Bet v 1		C	U66076
	Pru av 2	hom: thaumatin		C	U32440
	Pru av 3	lipid transfer protein	10	C	AF221501
	Pru av 4	profilin	15	C	AF129425
<i>Prunus domestica</i>					
European plum	Pru d 3	lipid transfer protein	9	P	119C
<i>Prunus persica</i>					
peach	Pru p 3	lipid transfer protein	10	P	P81402
	Pru p 4	profilin	14	C	see isoallergen list
<i>Asparagus officinalis</i>					
asparagus	Aspa o 1	lipid transfer protein	9	P	119D
<i>Crocus sativus</i>					
saffron crocus	Cro s 1		21		Varasteh A-R p.c.
<i>Lactuca sativa</i>					
lettuce	Lac s 1	lipid transfer protein	9		Vieths p.c.
<i>Vitis vinifera</i>					
grape	Vit v 1	lipid transfer protein	9	P	P80274
<i>Musa x paradisiaca</i>					
banana	Mus xp 1	profilin	15	C	AF377948
<i>Ananas comosus</i>					
pineapple	Ana c 1	profilin	15	C	AF377949
<i>Litchi chinensis</i>					
litchi	Lit c 1	profilin	15	C	AY049013
<i>Sinapis alba</i>					
yellow mustard	Sin a 1	2S albumin	14	C	120
<i>Glycine max</i>					
soybean	Gly m 1	HPS	7	P	120A
	Gly m 2		8	P	A57106
	Gly m 3	profilin	14	C	see list of isoallergens
	Gly m 4	(SAM22) PR-10 prot.	17	C	X60043, 120B
<i>Arachis hypogaea</i>					
peanut	Ara h 1	vicilin	63.5	C	L34402
	Ara h 2	conglutin	17	C	L77197
	Ara h 3	glycinin	60	C	AF093541
	Ara h 4	glycinin	37	C	AF086821
	Ara h 5	profilin	15	C	AF059616
	Ara h 6	hom: conglutin	15	C	AF092846
	Ara h 7	hom: conglutin	15	C	AF091737
	Ara h 8	PR-10 protein	17	C	AY328088
<i>Lens culinaris</i>					

Species	allergen	biochemical designation	MW kDa	C: cDNA P: peptide	Reference Accession number
			SDS-PAGE		
lentil	Len c 1	vicilin	47	C	see list of isoallergens
	Len c 2	seed biotinylated prot.	66	P	120C
<i>Pisum sativum</i>					
pea	Pis s 1	vicilin	44	C	see list of isoallergens
	Pis s 2	convicilin	63	C	pending
<i>Actinidia chinensis</i>					
kiwi	Act c 1	cysteine protease	30	P	P00785
	Act c 2	thaumatin-like protein	24	P	SW:P81370, 121
<i>Capsicum annuum</i>					
bell pepper	Cap a 1w	osmotin-like protein	23	C	AJ297410
	Cap a 2	profilin	14	C	AJ417552
<i>Lycopersicon esculentum</i>					
tomato	Lyc e 1	profilin	14	C	AJ417553
	Lyc e 2	b-fructofuranosidase	50	C	see isoallergen list
<i>Solanum tuberosum</i>					
potato	Sola t 1	patatin	43	P	P15476
	Sola t 2	cathepsin D inhibitor	21	P	P16348
	Sola t 3	cysteine protease inhibitor	21	P	P20347
	Sola t 4	aspartic protease inhibitor	16+4	P	P30941
<i>Bertholletia excelsa</i>					
Brazil nut	Ber e 1	2S albumin	9	C	P04403, M17146
	Ber e 2	11S globulin seed storage protein	29	C	AY221641
<i>Juglans nigra</i>					
black walnut	Jug n 1	2S albumin	19*	C	AY102930
	Jug n 2	vicilin-like prot.	56*	C	AY102931
<i>Juglans regia</i>					
English walnut	Jug r 1	2S albumin		C	U66866
	Jug r 2	vicilin	44	C	AF066055
	Jug r 3	lipid transfer protein	9	P	Pastorello
<i>Anacardium occidentale</i>					
Cashew	Ana o 1	vicilin-like protein	50	C	see isoallergen list
	Ana o 2	legumin-like protein	55	C	AF453947
	Ana o 3	2S albumin	14	C	AY081853
<i>Ricinus communis</i>					
Castor bean	Ric c 1	2S albumin		C	P01089
<i>Sesamum indicum</i>					
sesame	Ses i 1	2S albumin	9	C	121A, AF240005
	Ses i 2	2S albumin	7	C	AF091841
	Ses i 3	7S vicilin-like globulin	45	C	AF240006



Species	allergen	biochemical designation	MW kDa SDS-PAGE	C: cDNA P: peptide	Reference Accession number
<i>Cucumis melo</i>					
muskmelon	Cuc m 1	serine protease	66	C	D32206
	Cuc m 2	profilin	14	C	AY271295
	Cuc m 3	pathogenesis-rel p. PR-1	16*	P	P83834
I. Others					
<i>Anisakis simplex</i>					
nematode	Ani s 1		24	P	121B, A59069
	Ani s 2	paramyosin	97	C	AF173004
	Ani s 3	tropomyosin	41	C	121C, Y19221
<i>Ascaris suum</i>					
worm	Asc s 1		10	P	122
<i>Dendronephthya nipponica</i>					
soft coral	Den n 1		53	P	122A
<i>Hevea brasiliensis</i>					
rubber (latex)	Hev b 1	elongation factor	58	P	123, 124
	Hev b 2	1,3-glucanase	34/36	C	125
	Hev b 3		24	P	126, 127
	Hev b 4	component of microhelix complex	100- 115	P	128
	Hev b 5		16	C	U42640
	Hev b 6.01	hevein precursor	20	C	M36986, p02877
	Hev b 6.02	hevein	5	C	M36986, p02877
	Hev b 6.03	C-terminal fragment	14	C	M36986, p02877
	Hev b 7.01	hom: patatin from B- serum	42	C	U80598
	Hev b 7.02	hom: patatin from C- serum	44	C	AJ223038
	Hev b 8	profilin	14	C	see list of isoallergens
	Hev b 9	enolase	51	C	AJ132580
	Hev b 10	Mn superoxide dismut.	26	C	see list of isoallergens
Hev b 11	class 1 chitinase		C	see list of isoallergens	
Hev b 12	lipid transfer protein	9.3	C	AY057860	
Hev b 13	esterase	42	P	P83269	
<i>Homo sapiens</i>					
human autoallergens	Hom s 1		73*	C	Y14314

Species	allergen	biochemical designation	MW kDa	C: cDNA P: peptide	Reference Accession number
			SDS-PAGE		
	Hom s 2		10.3*	C	X80909
	Hom s 3		20.1*	C	X89985
	Hom s 4		36*	C	Y17711
	Hom s 5		42.6*	C	P02538
<i>Triplochiton scleroxylon</i> obeche	Trip s 1	class 1 chitinase	38.5	P	Kespohl p.c.

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