

Additional file 4

Penicillium marneffei	SKVTMASQSLMVHSLISGLHHPVKD	SKSKALVLDQGLALVQGNVISE	---TLDIPNKE---	ISEG---	RKLVSSECDRMSHMSPS---	SGVHVPPQWISVILLRSKR---	FNIE-HW---	EYFKENWLVLCFCPCDPA	IKSQATIQGNKFFVYM	145			
Tuber melanosporum	ARQTMLTRVNDMDNLFGLLSGSKYVRNRLAACVAE	PRALGSEKSAAR	---CLNNIFSRD---	BANG---	KRMFELIKERELFTKDG---	E-GVFVAMWGVLILLIRVT---	AAE-QW---	EPFTHMLRVLRCPVWOKD	VVVEQAIAHQKLYAM	146			
Aspergillus oryzae	NKSLFTSQ	ALMWNHLSGLLHHKQVRIKAISLSQ	SLAIFGNPILSK	---	NIRNINLDRP---	IQDG---	RKLVSSECDRMSHMSPS---	DTGVVPPQWIAVILLLRNR---	LTVD-HW---	EHLEKEFTPLQKFCPCDQD	147		
Aspergillus terreus	HSKQLFISHAHAMDHLSGGLHHMDIRLKA	LGFGQTAIVGNLGNLS	---	STYDIFDRP---	MNDNNEKRLAAEICERMFLRNKR---	DSG---	SGVHVPPQWISVILLLRSCR---	VSID-HW---	EHFRELVLVLRCPVWOKD	148			
Aspergillus nidulans	VAKPTFLALSTLWMDHLSGLLHHKQVRIKAISLSQ	SLAIFGNPILSK	---	NIRNINLDRP---	IQDG---	RKLVSSECDRMSHMSPS---	DTGVVPPQWIAVILLLRNR---	LTVD-HW---	EHLEKEFTPLQKFCPCDQD	149			
Arthroderma benhamiae	ARQTMLTRVNDMDNLFGLLSGSKYVRNRLAACVAE	PRALGSEKSAAR	---CLNNIFSRD---	BANG---	KRMFELIKERELFTKDG---	E-GVFVAMWGVLILLIRVT---	AAE-QW---	EPFTHMLRVLRCPVWOKD	VVVEQAIAHQKLYAM	150			
Arthroderma otiae	NKSLFTSQ	ALMWNHLSGLLHHKQVRIKAISLSQ	SLAIFGNPILSK	---	NIRNINLDRP---	IQDG---	RKLVSSECDRMSHMSPS---	DTGVVPPQWIAVILLLRNR---	LTVD-HW---	EHLEKEFTPLQKFCPCDQD	151		
Aspergillus flavus	NKSLFTSQ	ALMWNHLSGLLHHKQVRIKAISLSQ	SLAIFGNPILSK	---	NIRNINLDRP---	IQDG---	RKLVSSECDRMSHMSPS---	DTGVVPPQWIAVILLLRNR---	LTVD-HW---	EHLEKEFTPLQKFCPCDQD	152		
Arthroderma gypseum	ARSVPVSHANFMDNLDGLLYKQVRLKALQGRF	ITDSLGSPVFF	---	AIDEVLNIP---	DKDKDFTVNDPDRSLAMIANR	---	ETSLHVPPQWISVILLLRSCR---	WNLIE-KW---	SHFKSMWLVLCFCPCDPA	153			
Ajellomyces dermatitidis	LSQQTMAHAGLMDHLLTALLNFKVETRAIRGLKLVMSALMGNTVSN	---	ALREVLDPV---	LENG---	SPFVLELGRISGMIFNP	---	SGSVPPQWISVILLLRSCR---	WNLIE-KW---	SHFKSMWLVLCFCPCDPA	154			
Sordaria macrospora	ITGKTMVHS	DWLVDLFTDMLSTKIDREKAVT	LGNAAT	ITGHEVQLSS	---	KAMIFPNS---	VSE---	EKKIYEYERIKKLVMSKDK	---	TVSASVPHVMSVILLLR---	155		
Coccidioides immitis	ARSIMATYASLMDHVIKAMFHRVKDIRA	IKGLVLEAKS	SGPNISPS	---	ABQBALDIT---	MENG---	AKFSDSECRITIMVTTSR	---	DSGVVPPQWISVILLLRSCR---	ASLN-GW---	ASFRWMLVLCFCPCDPA	156	
Ajellomyces capsulatus	IPLEFSSRRVDMAPYLLACLVDASRPIREKALLADLSKHVYIDKLVAR	---	ALREVLDPV---	LENG---	SPFVLELGRISGMIFNP	---	SGSVPPQWISVILLLRSCR---	WNLIE-KW---	SHFKSMWLVLCFCPCDPA	157			
Neurospora crassa	ITGKTMVHS	DWLVDLFTDMLSTKIDREKAVT	LGNAAT	ITGHEVQLSS	---	KAMIFPNS---	VSE---	EKKIYEYERIKKLVMSKDK	---	TVSASVPHVMSVILLLR---	158		
Candida albicans	FYLKCFVSGVHCLLEKAFDNRKTRAYVLLP	SPFFFNISKSSSSSS	IV-IDSII	---	SN-DSGN	---	OKQVDVLSKISLELHD	---	SGKFAMDIWAIVLVGYSG	---	ESFE-RW---	159	
Schizosaccharomyces pombe	IPLEFSSRRVDMAPYLLACLVDASRPIREKALLADLSKHVYIDKLVAR	---	ALREVLDPV---	LENG---	SPFVLELGRISGMIFNP	---	SGSVPPQWISVILLLRSCR---	WNLIE-KW---	SHFKSMWLVLCFCPCDPA	160			
Asbya gossypii	YNGKLLSSSIVSMELKLVSLVNRRLSIS	---	ALLNTTAVETCTQDQDNKAF	---	ARSVQRS---	---	KTQKQLQERIKKLELLEN	---	SGKFAMDIWAIVLVGYSG	---	ESFE-RW---	161	
Phaeosphaeria nodorum	RPDMVMIKHEWRFKHLKAPATQDINQSAIDTAAKT	ITGDDHNVK	---	SCGLALNR---	---	G-APVVKILTELEKMLD	---	HAALVPPQWIAVILLLRSDS	---	MNBE-AF---	162		
Leptosphaeria sclerotiorum	RPDMVMIKHEWRFKHLKAPATQDINQSAIDTAAKT	ITGDDHNVK	---	SCGLALNR---	---	G-APVVKILTELEKMLD	---	HAALVPPQWIAVILLLRSDS	---	MNBE-AF---	163		
Botryotinia fuckeliana	SRSMHISNS	DWLDDFLDMLSSSMTITATAP	GEAGLEGRIS	---	KVTRIFPK---	---	SDKQVPPQWIAVILLLRSDS	---	HAALVPPQWIAVILLLRSDS	---	MNBE-AF---	164	
Chaetomium globosum	SKQALMVHS	DWLDDFLDMLSSSMTITATAP	GEAGLEGRIS	---	KVTRIFPK---	---	SDKQVPPQWIAVILLLRSDS	---	HAALVPPQWIAVILLLRSDS	---	MNBE-AF---	165	
Nectria haematococca	SRSMHISNS	DWLDDFLDMLSSSMTITATAP	GEAGLEGRIS	---	KVTRIFPK---	---	SDKQVPPQWIAVILLLRSDS	---	HAALVPPQWIAVILLLRSDS	---	MNBE-AF---	166	
Gibberella zeae	SRSMHISNS	DWLDDFLDMLSSSMTITATAP	GEAGLEGRIS	---	KVTRIFPK---	---	SDKQVPPQWIAVILLLRSDS	---	HAALVPPQWIAVILLLRSDS	---	MNBE-AF---	167	
Debaromyces hanseni	LYSKVIMGHSVLLVARNMDKNNVLFSVRRLAS	PLSTVTSISDST	---	SVSPFAPT---	---	KSDE	---	NLVTHFISTITETLIGN	---	SGKFAMDIWAIVLVGYSG	---	ESFE-RW---	168
Vanderwaltozyma polyspora	RPDMVMIKHEWRFKHLKAPATQDINQSAIDTAAKT	ITGDDHNVK	---	SCGLALNR---	---	G-APVVKILTELEKMLD	---	HAALVPPQWIAVILLLRSDS	---	MNBE-AF---	169		
Candida glabrata	YSLKIANNCVSIILLDKRCILDRNQG	VLELYQD	---	KELFESVNS	---	---	---	---	---	---	---	170	
Lachancea thermotolerans	TSTLRDKCIDVPTKLVAMPKAVND	---	DNIRDELLELSGHEV	---	QVTVSYLDD	---	TKDQEVFAAIDNTIKVQGLRDS	---	NYPMKQWLEFFLKLKNEKL	---	HS-RQ---	171	
Tribolium castaneum	PSPKTLRIS	INCLLIRKAFVLDNVSVQSVTL	LEKSIENDSVLASENG	ED-LDIB	---	LI-SQEV	---	S-VYDIYCKLMLEMIT	---	GRKFEMWLVLCFCPCDPA	172		
Scheffersomyces stipitis	YMKIKATATVSLVLEKSDINVECKKQVLEQD	DNVYVYKFSRE	---	KSSESQDC	---	DHNN	---	ITVGHLLKRLKILTYK	---	BEYKLANDMLVAMGLNNSBE	173		
Sclerotinia sclerotiorum	YSTKTGTATVSLVLEKSDINVECKKQVLEQD	DNVYVYKFSRE	---	KSSESQDC	---	DHNN	---	ITVGHLLKRLKILTYK	---	BEYKLANDMLVAMGLNNSBE	174		
Pyrenophora tritici-repentis	YSTKTGTATVSLVLEKSDINVECKKQVLEQD	DNVYVYKFSRE	---	KSSESQDC	---	DHNN	---	ITVGHLLKRLKILTYK	---	BEYKLANDMLVAMGLNNSBE	175		
Candida dubliniensis	FYLKCFVSGVHCLLEKAFDNRKTRAYVLLP	SPFFFNISKSSSS	IV-IDSII	---	SN-DSGN	---	OKQVDVLSKISLELHD	---	SGKFAMDIWAIVLVGYSG	---	ESFE-RW---	176	
Lachancea thermotolerans	YSLKIANNCVSIILLDKRCILDRNQG	VLELYQD	---	KELFESVNS	---	---	---	---	---	---	---	177	
Tribolium castaneum	TSTLRDKCIDVPTKLVAMPKAVND	---	DNIRDELLELSGHEV	---	QVTVSYLDD	---	TKDQEVFAAIDNTIKVQGLRDS	---	NYPMKQWLEFFLKLKNEKL	---	HS-RQ---	178	
Scheffersomyces stipitis	PSPKTLRIS	INCLLIRKAFVLDNVSVQSVTL	LEKSIENDSVLASENG	ED-LDIB	---	LI-SQEV	---	S-VYDIYCKLMLEMIT	---	GRKFEMWLVLCFCPCDPA	179		
Vanderwaltozyma polyspora	YMKIKATATVSLVLEKSDINVECKKQVLEQD	DNVYVYKFSRE	---	KSSESQDC	---	DHNN	---	ITVGHLLKRLKILTYK	---	BEYKLANDMLVAMGLNNSBE	180		
Candida glabrata	YSTKTGTATVSLVLEKSDINVECKKQVLEQD	DNVYVYKFSRE	---	KSSESQDC	---	DHNN	---	ITVGHLLKRLKILTYK	---	BEYKLANDMLVAMGLNNSBE	181		
Rattus norvegicus	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	182	
Pan troglodytes	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	183	
Taeniopygia guttata	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	184	
Mus musculus	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	185	
Danio rerio	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	186	
Homo sapiens	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	187	
Equus caballus	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	188	
Drosophila simulans	ATSFDDDELVEFVLDLPLMPDADR	---	QDCAAVAALAAALVAL	---	DVSAIHSK	---	CWQIRGEFVDKTI	---	TLIGEMRDA	---	KNNMKWINTVLVQIMDEDL	189	
Drosophila melanogaster	ATSFDDDELVEFVLDLPLMPDADR	---	QDCAAVAALAAALVAL	---	DVSAIHSK	---	CWQIRGEFVDKTI	---	TLIGEMRDA	---	KNNMKWINTVLVQIMDEDL	190	
Gallus gallus	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	191	
Drosophila erecta	ATSFDDDELVEFVLDLPLMPDADR	---	QDCAAVAALAAALVAL	---	DVSAIHSK	---	CWQIRGEFVDKTI	---	TLIGEMRDA	---	KNNMKWINTVLVQIMDEDL	192	
Oryctolagus cuniculus	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	193	
Bos taurus	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	194	
Callithrix jacchus	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	195	
Pongo abelii	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	196	
Sus scrofa	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	197	
Xenopus tropicalis	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	198	
Macaca mulatta	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	199	
Alluropoda melanoleuca	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	200	
Trichoplax adhaerens	APVOMGEESVRNAXLIVPLVHSAQ	---	VHRRGATALEMGMPIL	LQ-KQOEBIA	S-ITQ	---	LM-TKLSIELQKLFMSK	---	NETVVVKLWPLFVKLIGRTL	---	HR-SG---	201	
Drosophila sechellia	ATSFDDDELVEFVLDLPLMPDADR	---	QDCAAVAALAAALVAL	---	DVSAIHSK	---	CWQIRGEFVDKTI	---	TLIGEMRDA	---	KNNMKWINTVLVQIMDEDL	202	
Anopheles gambiae	ATSFDDDELVEFVLDLPLMPDADR	---	QDCAAVAALAAALVAL	---	DVSAIHSK	---	CWQIRGEFVDKTI	---	TLIGEMRDA	---	KNNMKWINTVLVQIMDEDL	203	
Drosophila grimshawi	ATSFDDDELVEFVLDLPLMPDADR	---	QDCAAVAALAAALVAL	---	DVSAIHSK	---	CWQIRGEFVDKTI	---	TLIGEMRDA	---	KNNMKWINTVLVQIMDEDL	204	
Drosophila persimilis	ATSFDDDELVEFVLDLPLMPDADR	---	QDCAAVAALAAALVAL	---	DVSAIHSK	---	CWQIRGEFVDKTI	---	TLIGEMRDA	---	KNNMKWINTVLVQIMDEDL	205	
Drosophila ananassae	ATSFDDDELVEFVLDLPLMPDADR	---	QDCAAVAALAAALVAL	---	DVSAIHSK	---	CWQIRGEFVDKTI	---	TLIGEMRDA	---	KNNMKWINTVLVQIMDEDL	206	
Drosophila virilis	ATSFDDDELVEFVLDLPLMPDADR	---	QDCAAVAALAAALVAL	---	DVSAIHSK	---	CWQIRGEFVDKTI	---	TLIGEMRDA	---	KNNMKWINTVLVQIMDEDL	207	
Drosophila pseudoobscura	ATSFDDDELVEFVLDLPLMPDADR	---	QDCAAVAALAAALVAL	---	DVSAIHSK	---	CWQIRGEFVDKTI	---	TLIGEMRDA	---	KNNMKWINTVLVQIMDEDL	208	
Anopheles darlingi	THKSIDENELQVLDLVARLMLFKKDP	---	AKVAALAAALVAL	---	DVSAIHSK	---	CWQIRGEFVDKTI	---	TLIGEMRDA	---	KNNMKWINTVLVQIMDEDL	209	
Nasonia vitripennis	SPSINRQDFTLMDTIVLLAYMGR	---	QKQALVLEKAFDNRKTRAYVLLP	SPFFFNISKSSSS	IV-IDSII	---	SN-DSGN	---	OKQVDVLSKISLELHD	---	SGKFAMDIWAIVLVGYSG	210	
Drosophila willistoni	ATSFDDDELVEFVLDLPLMPDADR	---	QDCAAVAALAAALVAL	---	DVSAIHSK	---	CWQIRGEFVDKTI	---	TLIGEMRDA	---	KNNMKWINTVLVQIMDEDL	211	
Harpegnathos saltator	TPDQNMKEFDLMDKVVILAYMGR	---	QKQALVLEKAFDNRKTRAYVLLP	SPFFFNISKSSSS	IV-IDSII	---	SN-DSGN	---	OKQVDVLSKISLELHD	---	SGKFAMDIWAIVLVGYSG	212	
Talaromyces stipitatus	SKATMASQSLMVHSLISGLHHPVKD	SKSKALVLDQGLALVQGNVISE	---TLDIPNKE---	ISEG---	RKLVSSECDRMSHMSPS---	SGVHVPPQWISVILLRSKR---	FNIE-HW---	EYFKENWLVLCFCPCDPA	IKSQATIQGNKFFVYM	213			
Saccharomyces cerevisiae	YSKMLITISVVLLELKKCLDFVDEHRIQVCI	MLSPCE	---	PEKFLSKL	---	LNSYDSSA	---	NLDK	---	VTHGLLQKQKNNVYK	214		
Aspergillus fumigatus	SKSIFVSQSLVHSLISGLHHPVKD	SKSKALVLDQGLALVQGNVISE	---TLDIPNKE---	ISEG---	RKLVSSECDRMSHMSPS---	SGVHVPPQWISVILLRSKR---	FNIE-HW---	EYFKENWLVLCFCPCDPA	IKSQATIQGNKFFVYM	215			
Camponotus floridanus	TPDQNMKEFDLMDKVVILAYMGR	---	QKQALVLEKAFDNRKTRAYVLLP	SPFFFNISKSSSS	IV-IDSII	---	SN-DSGN	---	OKQVDVLSKISLELHD	---	SGKFAMDIWAIVLVGYSG	216	
Necator sp.	SKSIFVSQSLVHSLISGLHHPVKD	SKSKALVLDQGLALVQGNVISE	---TLDIPNKE---	ISEG---	RKLVSSECDRMSHMSPS---	SGVHVPPQWISVILLRSKR---	FNIE-HW---	EYFKENWLVLCFCPCDPA	IKSQATIQGNKFFVYM	217			
Aspergillus niger	SKSIFVSQSLVHSLISGLHHPVKD	SKSKALVLDQGLALVQGNVISE	---TLDIPNKE---	ISEG---	RKLVSSECDRMSHMSPS---	SGVHVPPQWISVILLRSKR---	FNIE-HW---	EYFKENWLVLCFCPCDPA	IKSQATIQGNKFFVYM	218			
Penicillium chrysogenum	AKSAFISQASLWMEHLIPALLHHHRDR	SKATALQVOTAEAGNPIILSK	---	NIRNINLDRP---	IQDG---	RKLVSSECDRMSHMSPS---	DTGVVPPQWIAVILLLRNR---	LTVD-HW---	EHLEKEFTPLQKFCPCDQD	219			
Aspergillus clavatus	SKSIFVSQSLVHSLISGLHHPVKD	SKSKALVLDQGLALVQGNVISE	---TLDIPNKE---	ISEG---	RKLVSSECDRMSHMSPS---	SGVHVPPQWISVILLRSKR---	FNIE-HW---	EYFKENWLVLCFCPCDPA	IKSQATIQGNKFFVYM	220			
Uncinocarpus reesii	APSVLAPVHSLISGLHHPVKD	SKSKALVLDQGLALVQGNVISE	---TLDIPNKE---	ISEG---	RKLVSSECDRMSHMSPS---	SGVHVPPQWISVILLRSKR---	FNIE-HW---	EYFKENWLVLCFCPCDPA	IKSQATIQGNKFFVYM	221			
Candida tropicalis	FYLKCFVSGVHCLLEKAFDNRKTRAYVLLP	SPFFFNISKSSSS	IV-IDSII	---	SN-DSGN	---	OKQVDVLSKISLELHD	---	SGKFAMDIWAIVLVGYSG	---	ESFE-RW---	222	
Magnaporthe oryzae	SKSIFVSQSLVHSLISGLHHPVKD	SKSKALVLDQGLALVQGNVISE	---TLDIPNKE---	ISEG---	RKLVSSECDRMSHMSPS---	SGVHVPPQWISVILLRSKR---	FNIE-HW---	EYFKENWLVLCFCPCDPA	IKSQATIQGNKFFVYM	223			
Podospora anserina	SKSIFVSQSLVHSLISGLHHPVKD	SKSKALVLDQGLALVQGNVISE	---TLDIPNKE---	ISEG---	RKLVSSECDRMSHMSPS---	SGVHVPPQWISVILLRSKR---	FNIE-HW---	EYFKENWLVLCFCPCDPA	IKSQATIQGNKFFVYM	224			
Clavospora lusitanae	LVHKIASGNTITLLEAARTYLDTVKVS	SVARPLGRFPTG	---	SVSESAN	---	VVS---	---	---	---	---	---	225	
Trichophyton verrucosum	ARSIMATYASLMDHVIKAMFHRVKDIRA	IKGLVLEAKS	SGPNISPS	---	ABQBALDIT---	MENG---	AKFSDSECRITIMVTTSR	---	DSGVVPPQWISVILLLRSCR---	ASLN-GW---	ASFRWMLVLCFCPCDPA	226	
Coccidioides posadasii	ARSIMATYASLMDHVIKAMFHRVKDIRA	IKGLVLEAKS	SGPNISPS	---	ABQBALDIT---	MENG---	AKFSDSECRITIMVTTSR	---	DSGVVPPQWISVILLLRSCR---	ASLN-GW---	ASFRWMLVLCFCPCDPA	227	
Schizosaccharomyces japonicus	IPLEFSSRRVDMAPYLLACLVDASRPIREKALLADLSKHVYIDKLVAR	---	ALREVLDPV---	LENG---	SPFVLELGRISGMIFNP	---	SGSVPPQWISVILLLRSCR---	WNLIE-KW---	SHFKSMWLVLCFCPCDPA	228			
Zygosaccharomyces rouxii	IPLEFSSRRVDMAPYLLACLVDASRPIREKALLADLSKHVYIDKLVAR	---	ALREVLDPV---	LENG---	SPFVLELGRISGMIFNP	---	SGSVPPQWISVILLLRSCR---	WNLIE-KW---	SHFKSMWLVLCFCPCDPA	229			
Glomerella graminicola	SKQALMVHS	DWLDDFLDMLSSSMTITATAP	GEAGLEGRIS	---	KVTRIFPK---	---	SDKQVPPQWIAVILLLRSDS	---	HAALVPPQWIAVILLLRSDS	---	MNBE-AF---	230	
Paracoccidioides brasiliensis	LQSQAMAAHAEINLDQVALLNFKVETRAIRGLKLVMSALMGNTVSN	---	ALREVLDPV---	LENG---	SPFVLELGRISGMIFNP	---	SGSVPPQWISVILLLRSCR---	WNLIE-KW---	SHFKSMWLVLCFCPCDPA	231			
Kluyveromyces fragilis	IPLEFSSRRVDMAPYLLACLVDASRPIREKALLADLSKHVYIDKLVAR	---	ALREVLDPV---	LENG---	SPFVLELGRISGMIFNP	---	SGSVPPQWISVILLLRSCR---	WNLIE-KW---	SHFKSMWLVLCFCPCDPA	232			
Lodderomyces elongisporus	IPLEFSSRRVDMAPYLLACLVDASRPIREKALLADLSKHVYIDKLVAR	---	ALREVLDPV---	LENG---	SPFVLELGRISGMIFNP	---	SGSVPPQWISVILLLRSCR---	WNLIE-KW---	SHFKSMWLVLCFCPCDPA	233			
Hydra magnipapillata	IPLEFSSRRVDMAPYLLACLVDASRPIREKALLADLSKHVYIDKLVAR	---	ALREVLDPV---	LENG---	SPFVLELGRISGMIFNP	---	SGSVPPQWISVILLLRSCR---	WNLIE-KW---	SHFKSMWLVLCFCPCDPA	234			
Aedes aegypti	IPLEFSSRRVDMAPYLLACLVDASRPIREKALLADLSKHVYIDKLVAR	---	ALREVLDPV---	LE									