

eolf-seq1

SEQUENCE LISTING

<110> Novartis International Pharmaceutical Ltd
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 KANERVA, Anne
 HILTUNEN, Jukka
 SALOHEIMO, Markku
 VISKARI, Heli
 HUUSKONEN, Anne

<120> FUSION ENZYMES

<130> 61967-20010.40

<140> Not Yet Assigned

<141> Concurrently Herewith

<150> US 61/417,144

<151> 2010-11-24

<160> 147

<170> FastSEQ for windows Version 4.0

<210> 1

<211> 445

<212> PRT

<213> Homo sapiens

<400> 1

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Ala Pro Gly Arg Pro Pro Ser Val Ser Ala Leu Asp Gly Asp Pro Ala
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Ser Leu Thr Arg Glu Val Ile Arg Leu Ala Gln Asp Ala Glu Val Glu
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Leu Glu Arg Gln Arg Gly Leu Leu Gln Gln Ile Gly Asp Ala Leu Ser
 65      70      75      80
Ser Gln Arg Gly Arg Val Pro Thr Ala Ala Pro Pro Ala Gln Pro Arg
 85      90      95
Val Pro Val Thr Pro Ala Pro Ala Val Ile Pro Ile Leu Val Ile Ala
100      105      110
Cys Asp Arg Ser Thr Val Arg Arg Cys Leu Asp Lys Leu Leu His Tyr
115      120      125
Arg Pro Ser Ala Glu Leu Phe Pro Ile Ile Val Ser Gln Asp Cys Gly
130      135      140
His Glu Glu Thr Ala Gln Ala Ile Ala Ser Tyr Gly Ser Ala Val Thr
145      150      155      160
His Ile Arg Gln Pro Asp Leu Ser Ser Ile Ala Val Pro Pro Asp His
165      170      175
Arg Lys Phe Gln Gly Tyr Tyr Lys Ile Ala Arg His Tyr Arg Trp Ala
180      185      190
Leu Gly Gln Val Phe Arg Gln Phe Arg Phe Pro Ala Ala Val Val Val
195      200      205
Glu Asp Asp Leu Glu Val Ala Pro Asp Phe Phe Glu Tyr Phe Arg Ala
210      215      220
Thr Tyr Pro Leu Leu Lys Ala Asp Pro Ser Leu Trp Cys Val Ser Ala
225      230      235      240
Trp Asn Asp Asn Gly Lys Glu Gln Met Val Asp Ala Ser Arg Pro Glu
245      250      255
Leu Leu Tyr Arg Thr Asp Phe Phe Pro Gly Leu Gly Trp Leu Leu
260      265      270
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Gln	Phe	Val	His	Phe	Thr	Gln	Leu	Asp	Leu	Ser	Tyr	Leu	Gln	Arg	Glu
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Ala	Tyr	Asp	Arg	Asp	Phe	Leu	Ala	Arg	Val	Tyr	Gly	Ala	Pro	Gln	Leu
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Gln	Val	Glu	Lys	Val	Arg	Thr	Asn	Asp	Arg	Lys	Glu	Leu	Gly	Glu	Val
		370				375					380				
Arg	Val	Gln	Tyr	Thr	Gly	Arg	Asp	Ser	Phe	Lys	Ala	Phe	Ala	Lys	Ala
385					390					395					400
Leu	Gly	Val	Met	Asp	Asp	Leu	Lys	Ser	Gly	Val	Pro	Arg	Ala	Gly	Tyr
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Arg	Gly	Ile	Val	Thr	Phe	Gln	Phe	Arg	Gly	Arg	Arg	Val	His	Leu	Ala
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<211> 445

<212> PRT

<213> Pan troglodytes

<400> 2

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Leu	Glu	Arg	Gln	Arg	Gly	Leu	Leu	Gln	Gln	Ile	Gly	Asp	Ala	Leu	Ser
65					70					75				80	
Ser	Gln	Arg	Gly	Arg	Val	Pro	Thr	Ala	Ala	Pro	Pro	Ala	Gln	Pro	Arg
				85					90					95	
Val	Pro	Val	Thr	Pro	Ala	Pro	Ala	Val	Ile	Pro	Ile	Leu	Val	Ile	Ala
			100					105					110		
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		115					120					125			
Arg	Pro	Ser	Ala	Glu	Leu	Phe	Pro	Ile	Ile	Val	Ser	Gln	Asp	Cys	Gly
	130					135					140				
His	Glu	Glu	Thr	Ala	Gln	Ala	Ile	Ala	Ser	Tyr	Gly	Ser	Ala	Val	Thr
145					150					155					160
His	Ile	Arg	Gln	Pro	Asp	Leu	Ser	Ser	Ile	Ala	Val	Pro	Pro	Asp	His
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Arg	Lys	Phe	Gln	Gly	Tyr	Tyr	Lys	Ile	Ala	Arg	His	Tyr	Arg	Trp	Ala
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Glu	Asp	Asp	Leu	Glu	Val	Ala	Pro	Asp	Phe	Phe	Glu	Tyr	Phe	Gln	Ala
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Thr	Tyr	Pro	Leu	Leu	Lys	Ala	Asp	Pro	Ser	Leu	Trp	Cys	Val	Ser	Ala
225					230					235					240
Trp	Asn	Asp	Asn	Gly	Lys	Glu	Gln	Met	Val	Asp	Ala	Ser	Arg	Pro	Glu
				245					250					255	
Leu	Leu	Tyr	Arg	Thr	Asp	Phe	Phe	Pro	Gly	Leu	Gly	Trp	Leu	Leu	Leu
			260					265					270		
Ala	Glu	Leu	Trp	Ala	Glu	Leu	Glu	Pro	Lys	Trp	Pro	Lys	Ala	Phe	Trp
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Asp	Asp	Trp	Met	Arg	Arg	Pro	Glu	Gln	Arg	Gln	Gly	Arg	Ala	Cys	Ile
	290					295					300				
Arg	Pro	Glu	Ile	Ser	Arg	Thr	Met	Thr	Phe	Gly	Arg	Lys	Gly	Val	Ser

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305	His	Gly	Gln	Phe	Phe	Asp	Gln	His	Leu	Lys	Phe	Ile	Lys	Leu	Asn	Gln	320
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Gln	Phe	Val	His	Phe	Thr	Gln	Leu	Asp	Leu	Ser	Tyr	Leu	Gln	Arg	Glu		
			340					345						350			
Ala	Tyr	Asp	Arg	Asp	Phe	Leu	Ala	Arg	Val	Tyr	Gly	Ala	Pro	Gln	Leu		
		355					360					365					
Gln	Val	Glu	Lys	Val	Arg	Thr	Asn	Asp	Arg	Lys	Glu	Leu	Gly	Glu	Val		
	370					375					380						
Arg	Val	Gln	Tyr	Thr	Gly	Arg	Asp	Ser	Phe	Lys	Ala	Phe	Ala	Lys	Ala		
385					390					395					400		
Leu	Gly	Val	Met	Asp	Asp	Leu	Lys	Ser	Gly	Val	Pro	Arg	Ala	Gly	Tyr		
				405					410					415			
Arg	Gly	Ile	Val	Thr	Phe	Gln	Phe	Arg	Gly	Arg	Arg	Val	His	Leu	Ala		
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<211> 445

<212> PRT

<213> Pongo abelii

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65					70					75				80			
Ser	Gln	Arg	Gly	Arg	Val	Pro	Thr	Pro	Ala	Leu	Pro	Ala	Gln	Pro	Arg		
				85					90					95			
Val	Pro	Ala	Thr	Pro	Ala	Pro	Ala	Val	Ile	Pro	Ile	Leu	Val	Ile	Ala		
			100					105					110				
Cys	Asp	Arg	Ser	Thr	Val	Arg	Arg	Cys	Leu	Asp	Lys	Leu	Leu	Gln	Tyr		
	115						120					125					
Arg	Pro	Ser	Ala	Glu	Leu	Phe	Pro	Ile	Ile	Val	Ser	Gln	Asp	Cys	Gly		
	130					135				140							
His	Glu	Glu	Thr	Ala	Gln	Ala	Ile	Ala	Ser	Tyr	Gly	Ser	Ala	Val	Thr		
145					150					155					160		
His	Ile	Arg	Gln	Pro	Asp	Leu	Ser	Ser	Ile	Ala	Val	Pro	Pro	Asp	His		
				165					170					175			
Arg	Lys	Phe	Gln	Gly	Tyr	Tyr	Lys	Ile	Ala	Arg	His	Tyr	Arg	Trp	Ala		
		180					185						190				
Leu	Gly	Gln	Ile	Phe	Gln	Arg	Phe	Arg	Phe	Pro	Ala	Ala	Val	Val	Val		
	195						200					205					
Glu	Asp	Asp	Leu	Glu	Val	Ala	Pro	Asp	Phe	Phe	Glu	Tyr	Phe	Gln	Ala		
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225					230					235					240		
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	275						280					285					
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His	Gly	Gln	Phe	Phe	Asp	Gln	His	Leu	Lys	Phe	Ile	Lys	Leu	Asn	Gln		
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Gln	Phe	Val	His	Phe	Thr	Gln	Leu	Asp	Leu	Ser	Tyr	Leu	Gln	Arg	Glu		

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Gln	Val	Glu	Lys	Val	Arg	Thr	Asn	Asp	Arg	Lys	Glu	Leu	Gly	Glu	Val
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Arg	Val	Gln	Tyr	Thr	Gly	Arg	Asp	Ser	Phe	Lys	Ala	Phe	Ala	Lys	Ala
385					390					395					400
Leu	Gly	Val	Met	Asp	Asp	Leu	Lys	Ser	Gly	Val	Pro	Arg	Ala	Gly	Tyr
			405						410					415	
Arg	Gly	Ile	Val	Thr	Phe	Gln	Phe	Arg	Gly	Arg	Arg	Val	His	Leu	Ala
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Pro	Pro	Pro	Thr	Trp	Glu	Gly	Tyr	Asp	Pro	Ser	Trp	Asn			
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Leu	Glu	Arg	Gln	Arg	Gly	Leu	Leu	Gln	Gln	Ile	Gly	Asp	Ala	Leu	Trp
65				70						75					80
Ser	Gln	Arg	Gly	Arg	Val	Pro	Thr	Ala	Gly	Pro	Pro	Ala	Gln	Pro	His
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Val	Pro	Val	Thr	Pro	Ala	Pro	Ala	Val	Ile	Pro	Ile	Leu	Val	Ile	Ala
			100					105					110		
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His	Glu	Glu	Thr	Ala	Gln	Ala	Ile	Ala	Ser	Tyr	Gly	Ser	Ala	Val	Thr
145				150						155					160
His	Ile	Arg	Gln	Pro	Asp	Leu	Ser	Ser	Ile	Ala	Val	Pro	Pro	Asp	His
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Arg	Lys	Phe	Gln	Gly	Tyr	Tyr	Lys	Ile	Ala	Arg	His	Tyr	Arg	Trp	Ala
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Leu	Gly	Gln	Val	Phe	His	Arg	Phe	Arg	Phe	Pro	Ala	Ala	Val	Val	Val
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Arg	Pro	Glu	Ile	Ser	Arg	Thr	Met	Thr	Phe	Gly	Arg	Lys	Gly	Val	Ser
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His	Gly	Gln	Phe	Phe	Asp	Gln	His	Leu	Lys	Phe	Ile	Lys	Leu	Asn	Gln
				325					330					335	
Gln	Phe	Val	His	Phe	Thr	Gln	Leu	Asp	Leu	Ser	Tyr	Leu	Gln	Arg	Glu
			340					345					350		
Ala	Tyr	Asp	Arg	Asp	Phe	Leu	Ala	Arg	Val	Tyr	Ala	Ala	Pro	Gln	Leu
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Gln	Val	Glu	Lys	Val	Arg	Thr	Asn	Asp	Arg	Lys	Glu	Leu	Gly	Glu	Val

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Ala	Pro	Gly	Arg	Pro	Pro	Ser	Asp	Ser	Ala	Ile	Asp	Asp	Asp	Pro	Ala			
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Leu	Glu	Arg	Gln	Arg	Gly	Leu	Leu	Gln	Gln	Ile	Arg	Glu	His	His	Ala			
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Leu	Trp	Arg	Gln	Arg	Trp	Lys	Val	Pro	Thr	Val	Ala	Pro	Pro	Ala	Trp			
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Pro	Arg	Val	Pro	Ala	Thr	Pro	Ser	Pro	Ala	Val	Ile	Pro	Ile	Leu	Val			
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Ile	Ala	Cys	Asp	Arg	Ser	Thr	Val	Arg	Arg	Cys	Leu	Asp	Lys	Leu	Leu			
		115					120					125						
His	Tyr	Arg	Pro	Ser	Ala	Glu	His	Phe	Pro	Ile	Ile	Val	Ser	Gln	Asp			
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Cys	Gly	His	Glu	Glu	Thr	Ala	Gln	Val	Ile	Ala	Ser	Tyr	Gly	Ser	Ala			
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			165					170						175				
Asp	His	Arg	Lys	Phe	Gln	Gly	Tyr	Tyr	Lys	Ile	Ala	Arg	His	Tyr	Arg			
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Trp	Ala	Leu	Gly	Gln	Ile	Phe	Asn	Lys	Phe	Lys	Phe	Pro	Ala	Ala	Val			
		195					200					205						
Val	Val	Glu	Asp	Asp	Leu	Glu	Val	Ala	Pro	Asp	Phe	Phe	Glu	Tyr	Phe			
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Gln	Ala	Thr	Tyr	Pro	Leu	Leu	Arg	Thr	Asp	Pro	Ser	Leu	Trp	Cys	Val			
225				230					235					240				
Ser	Ala	Trp	Asn	Asn	Gly	Lys	Glu	Gln	Met	Val	Asp	Ser	Ser	Lys				
			245				250					255						
Pro	Glu	Leu	Leu	Tyr	Arg	Thr	Asp	Phe	Phe	Pro	Gly	Leu	Gly	Trp	Leu			
		260					265					270						
Leu	Met	Ala	Glu	Leu	Trp	Thr	Glu	Leu	Glu	Pro	Lys	Trp	Pro	Lys	Ala			
		275					280					285						
Phe	Trp	Asp	Asp	Trp	Met	Arg	Arg	Pro	Glu	Gln	Arg	Lys	Gly	Arg	Ala			
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Cys	Ile	Arg	Pro	Glu	Ile	Ser	Arg	Thr	Met	Thr	Phe	Gly	Arg	Lys	Gly			
305				310						315				320				
Val	Ser	His	Gly	Gln	Phe	Phe	Asp	Gln	His	Leu	Lys	Phe	Ile	Lys	Leu			
			325					330					335					
Asn	Gln	Gln	Phe	Val	Ser	Phe	Thr	Gln	Leu	Asp	Leu	Ser	Tyr	Leu	Gln			
		340					345					350						
Arg	Glu	Ala	Tyr	Asp	Arg	Asp	Phe	Leu	Ala	Arg	Val	Tyr	Ser	Ala	Pro			
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Leu	Leu	Gln	Val	Glu	Lys	Val	Arg	Thr	Asn	Asp	Gln	Lys	Glu	Leu	Gly			
	370					375					380							
Glu	Val	Arg	Val	Gln	Tyr	Thr	Ser	Arg	Asp	Ser	Phe	Lys	Ala	Phe	Ala			
385				390					395					400				
Lys	Ala	Leu	Gly	Val	Met	Asp	Asp	Leu	Lys	Ser	Gly	Val	Pro	Arg	Ala			

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 Leu Ala Pro Pro Gln Thr Trp Glu Gly Tyr Asp Pro Ser Trp Asn
 435 440 445

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<213> Rattus norvegicus
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Ala	Pro	Gly 35	Arg	Leu	Pro	Ser	Asp 40	Ser	Ala	Leu	Gly	Asp 45	Pro	Ala	
Ser	Leu 50	Thr	Arg	Glu	Val	Ile 55	His	Leu	Ala	Glu	Asp 60	Ala	Glu	Ala	Glu
Leu 65	Glu	Arg	Gln	Arg	Gly 70	Leu	Leu	Gln	Gln	Ile 75	Lys	Glu	His	Tyr	Ser 80
Leu	Trp	Arg	Gln	Arg	Trp	Arg	Val	Pro	Thr 90	Val	Ala	Pro	Pro	Ala 95	Trp
Pro	Arg	Val	Pro 100	Gly	Thr	Pro	Ser	Pro 105	Ala	Val	Ile	Pro	Ile 110	Leu	Val
Ile	Ala	Cys 115	Asp	Arg	Ser	Thr	Val 120	Arg	Arg	Cys	Leu	Asp 125	Lys	Leu	Leu
His	Tyr 130	Arg	Pro	Ser	Ala	Glu 135	His	Phe	Pro	Ile	Ile 140	Val	Ser	Gln	Asp
Cys 145	Gly	His	Glu	Glu	Thr 150	Ala	Gln	Val	Ile	Ala 155	Ser	Tyr	Gly	Thr	Ala 160
Val	Thr	His	Ile	Arg 165	Gln	Pro	Asp	Leu	Ser 170	Asn	Ile	Ala	Val	Gln 175	Pro
Asp	His	Arg	Lys 180	Phe	Gln	Gly	Tyr	Tyr 185	Lys	Ile	Ala	Arg	His 190	Tyr	Arg
Trp	Ala	Leu 195	Gly	Gln	Ile	Phe	Asn 200	Lys	Phe	Lys	Phe	Pro 205	Ala	Ala	Val
Val	Val 210	Glu	Asp	Asp	Leu	Glu 215	Val	Ala	Pro	Asp	Phe 220	Phe	Glu	Tyr	Phe
Gln 225	Ala	Thr	Tyr	Pro	Leu 230	Leu	Lys	Ala	Asp	Pro 235	Ser	Leu	Trp	Cys	Val 240
Ser	Ala	Trp	Asn	Asp 245	Asn	Gly	Lys	Glu	Gln 250	Met	Val	Asp	Ser	Ser 255	Lys
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Leu	Leu	Ala 275	Asp	Leu	Trp	Ala	Glu 280	Leu	Glu	Pro	Lys	Trp 285	Pro	Lys	Ala
Phe	Trp 290	Asp	Asp	Trp	Met	Arg 295	Arg	Pro	Glu	Gln	Arg 300	Lys	Gly	Arg	Ala
Cys 305	Ile	Arg	Pro	Glu	Ile 310	Ser	Arg	Thr	Met	Thr 315	Phe	Gly	Arg	Lys	Gly 320
Val	Ser	His	Gly	Gln 325	Phe	Phe	Asp	Gln	His 330	Leu	Lys	Phe	Ile	Lys 335	Leu
Asn	Gln	Gln	Phe 340	Val	Pro	Phe	Thr	Gln 345	Leu	Asp	Leu	Ser	Tyr 350	Leu	Gln
Arg	Glu	Ala 355	Tyr	Asp	Arg	Asp	Phe 360	Leu	Ala	Gln	Val	Tyr 365	Gly	Ala	Pro
Gln	Leu 370	Gln	Val	Glu	Lys	Val	Arg	Thr	Asn	Asp	Arg 380	Lys	Glu	Leu	Gly
Glu 385	Val	Arg	Val	Gln	Tyr 390	Thr	Ser	Arg	Asp	Ser 395	Phe	Lys	Ala	Phe	Ala 400
Lys	Ala	Leu	Gly	Val 405	Met	Asp	Asp	Leu	Lys 410	Ser	Gly	Val	Pro	Arg 415	Ala
Gly	Tyr	Arg	Gly 420	Ile	Val	Thr	Phe	Gln 425	Phe	Arg	Gly	Arg	Arg 430	Val	His
Leu	Ala	Pro	Pro	Glu	Thr	Trp	Asn	Gly	Tyr	Asp	Pro	Ser	Trp	Asn	

435 440 eolf-seql 445

<210> 7
 <211> 447
 <212> PRT
 <213> Mus musculus

<400> 7
 Met Leu Lys Lys Gln Thr Ala Gly Leu Val Leu Trp Gly Ala Ile Ile
 1 5 10 15
 Phe Val Gly Trp Asn Ala Leu Leu Leu Phe Phe Trp Thr Arg Pro
 20 25 30
 Ala Pro Gly Arg Leu Pro Ser Asp Ser Ala Leu Gly Asp Asp Pro Ala
 35 40 45
 Ser Leu Thr Arg Glu Val Ile His Leu Ala Glu Asp Ala Glu Ala Glu
 50 55 60
 Leu Glu Arg Gln Arg Gly Leu Leu Gln Gln Ile Lys Glu His Tyr Ala
 65 70 75 80
 Leu Trp Arg Gln Arg Trp Arg Val Pro Thr Val Ala Pro Pro Ala Trp
 85 90 95
 Pro Arg Val Pro Val Thr Pro Ser Pro Val Gln Ile Pro Ile Leu Val
 100 105 110
 Ile Ala Cys Asp Arg Ser Thr Val Arg Arg Cys Leu Asp Lys Leu Leu
 115 120 125
 His Tyr Arg Pro Ser Ala Glu Arg Phe Pro Ile Ile Val Ser Gln Asp
 130 135 140
 Cys Gly His Glu Glu Thr Ala Gln Val Ile Ala Ser Tyr Gly Thr Ala
 145 150 155 160
 Val Thr His Ile Arg Gln Pro Asp Leu Ser Asn Ile Ala Val Gln Pro
 165 170 175
 Asp His Arg Lys Phe Gln Gly Tyr Tyr Lys Ile Ala Arg His Tyr Arg
 180 185 190
 Trp Ala Leu Gly Gln Ile Phe Asn Lys Phe Lys Phe Pro Ala Ala Val
 195 200 205
 Val Val Glu Asp Asp Leu Glu Val Ala Pro Asp Phe Phe Glu Tyr Phe
 210 215 220
 Gln Ala Thr Tyr Pro Leu Leu Arg Thr Asp Pro Ser Leu Trp Cys Val
 225 230 235 240
 Ser Ala Trp Asn Asp Asn Gly Lys Glu Gln Met Val Asp Ser Ser Lys
 245 250 255
 Pro Glu Leu Leu Tyr Arg Thr Asp Phe Phe Pro Gly Leu Gly Trp Leu
 260 265 270
 Leu Leu Ala Asp Leu Trp Ala Glu Leu Glu Pro Lys Trp Pro Lys Ala
 275 280 285
 Phe Trp Asp Asp Trp Met Arg Arg Pro Glu Gln Arg Lys Gly Arg Ala
 290 295 300
 Cys Ile Arg Pro Glu Ile Ser Arg Thr Met Thr Phe Gly Arg Lys Gly
 305 310 315 320
 Val Ser His Gly Gln Phe Phe Asp Gln His Leu Lys Phe Ile Lys Leu
 325 330 335
 Asn Gln Gln Phe Val Pro Phe Thr Gln Leu Asp Leu Ser Tyr Leu Gln
 340 345 350
 Gln Glu Ala Tyr Asp Arg Asp Phe Leu Ala Gln Val Tyr Gly Ala Pro
 355 360 365
 Gln Leu Gln Val Glu Lys Val Arg Thr Asn Asp Gln Lys Glu Leu Gly
 370 375 380
 Glu Val Arg Val Gln Tyr Thr Ser Arg Asp Ser Phe Lys Ala Phe Ala
 385 390 395 400
 Lys Ala Leu Gly Val Met Asp Asp Leu Lys Ser Gly Val Pro Arg Ala
 405 410 415
 Gly Tyr Arg Gly Ile Val Thr Phe Gln Phe Arg Gly Arg Arg Val His
 420 425 430
 Leu Ala Pro Pro Gln Thr Trp Thr Gly Tyr Asp Pro Ser Trp Asn
 435 440 445

<210> 8

eolf-seq1

<211> 447

<212> PRT

<213> *Oryctolagus cuniculus*

<400> 8

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Met Leu Lys Lys Gln Ser Ala Gly Leu Val Leu Trp Gly Ala Ile Leu
 1      5      10      15
Phe Val Ala Trp Asn Ala Leu Leu Leu Phe Phe Trp Thr Arg Pro
 20      25      30
Val Pro Ser Arg Leu Pro Ser Asp Asn Ala Leu Asp Asp Asp Pro Ala
 35      40      45
Ser Leu Thr Arg Glu Val Ile Arg Leu Ala Gln Asp Ala Glu Val Glu
 50      55      60
Leu Glu Arg Gln Arg Gly Leu Leu Gln Gln Ile Arg Glu His His Ala
 65      70      75      80
Leu Trp Ser Gln Arg Trp Lys Val Pro Thr Ala Ala Pro Pro Ala Gln
 85      90      95
Pro His Val Pro Val Thr Pro Pro Pro Ala Val Ile Pro Ile Leu Val
100      105      110
Ile Ala Cys Asp Arg Ser Thr Val Arg Arg Cys Leu Asp Lys Leu Leu
115      120      125
His Tyr Arg Pro Ser Ala Glu Leu Phe Pro Ile Ile Val Ser Gln Asp
130      135      140
Cys Gly His Glu Glu Thr Ala Gln Val Ile Ala Ser Tyr Gly Ser Ala
145      150      155      160
Val Thr His Ile Arg Gln Pro Asp Leu Ser Asn Ile Ala Val Gln Pro
165      170      175
Asp His Arg Lys Phe Gln Gly Tyr Tyr Lys Ile Ala Arg His Tyr Arg
180      185      190
Trp Ala Leu Gly Gln Ile Phe His Asn Phe Asn Tyr Pro Ala Ala Val
195      200      205
Val Val Glu Asp Asp Leu Glu Val Ala Pro Asp Phe Phe Glu Tyr Phe
210      215      220
Gln Ala Thr Tyr Pro Leu Leu Lys Ala Asp Pro Ser Leu Trp Cys Val
225      230      235      240
Ser Ala Trp Asn Asp Asn Gly Lys Glu Gln Met Val Asp Ser Ser Lys
245      250      255
Pro Glu Leu Leu Tyr Arg Thr Asp Phe Phe Pro Gly Leu Gly Trp Leu
260      265      270
Leu Leu Ala Glu Leu Trp Ala Glu Leu Glu Pro Lys Trp Pro Lys Ala
275      280      285
Phe Trp Asp Asp Trp Met Arg Arg Pro Glu Gln Arg Lys Gly Arg Ala
290      295      300
Cys Val Arg Pro Glu Ile Ser Arg Thr Met Thr Phe Gly Arg Lys Gly
305      310      315      320
Val Ser His Gly Gln Phe Phe Asp Gln His Leu Lys Phe Ile Lys Leu
325      330      335
Asn Gln Gln Phe Val Pro Phe Thr Gln Leu Asp Leu Ser Tyr Leu Gln
340      345      350
Gln Glu Ala Tyr Asp Arg Asp Phe Leu Ala Arg Val Tyr Gly Ala Pro
355      360      365
Gln Leu Gln Val Glu Lys Val Arg Thr Asn Asp Arg Lys Glu Leu Gly
370      375      380
Glu Val Arg Val Gln Tyr Thr Gly Arg Asp Ser Phe Lys Ala Phe Ala
385      390      395      400
Lys Ala Leu Gly Val Met Asp Asp Leu Lys Ser Gly Val Pro Arg Ala
405      410      415
Gly Tyr Arg Gly Ile Val Thr Phe Leu Phe Arg Gly Arg Arg Val His
420      425      430
Leu Ala Pro Pro Gln Thr Trp Asp Gly Tyr Asp Pro Ser Trp Thr
435      440      445

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<210> 9

<211> 447

<212> PRT

<213> *Mesocricetus auratus*

eolf-seq1

<400> 9

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Met Leu Lys Lys Gln Ser Ala Gly Leu Val Leu Trp Gly Ala Ile Ile
 1      5      10      15
Phe Val Gly Trp Asn Ala Leu Leu Leu Leu Phe Phe Trp Thr Arg Pro
 20      25      30
Ala Pro Gly Arg Pro Pro Leu Asp Ser Ala Leu Asp Asp Pro Ala
 35      40      45
Ser Leu Thr Arg Glu Val Ile Arg Leu Ala Glu Asp Ala Glu Val Glu
 50      55      60
Leu Glu Arg Gln Arg Gly Leu Leu Gln Gln Ile Arg Glu His His Thr
 65      70      75      80
Leu Trp Asn Gln Arg Trp Lys Val Pro Thr Val Ala Pro Pro Ala Trp
 85      90      95
Pro Arg Val Pro Val Thr Pro Ser Pro Pro Val Ile Pro Ile Leu Val
100      105      110
Ile Ala Cys Asp Arg Ser Thr Val Arg Arg Cys Leu Asp Lys Leu Leu
115      120      125
His Tyr Arg Pro Ser Ala Glu His Phe Pro Ile Ile Val Ser Gln Asp
130      135      140
Cys Gly His Glu Glu Thr Ala Gln Val Ile Ala Ser Tyr Gly Ser Ala
145      150      155      160
Val Thr His Ile Arg Gln Pro Asp Leu Ser Asn Ile Ala Val Gln Pro
165      170      175
Asp His Arg Lys Phe Gln Gly Tyr Tyr Lys Ile Ala Arg His Tyr Arg
180      185      190
Trp Ala Leu Gly Gln Ile Phe Asn Lys Phe Lys Phe Pro Ala Ala Val
195      200      205
Val Val Glu Asp Asp Leu Glu Val Ala Pro Asp Phe Phe Glu Tyr Phe
210      215      220
Gln Ala Thr Tyr Pro Leu Arg Thr Asp Pro Ser Leu Trp Cys Val
225      230      235      240
Ser Ala Trp Asn Asp Asn Gly Lys Glu Gln Met Val Asp Ser Ser Lys
245      250      255
Pro Glu Leu Leu Tyr Arg Thr Asp Phe Phe Pro Gly Leu Gly Trp Leu
260      265      270
Leu Leu Ala Glu Leu Trp Ala Glu Leu Glu Pro Lys Trp Pro Lys Ala
275      280      285
Phe Trp Asp Asp Trp Met Arg Arg Pro Glu Gln Arg Lys Gly Arg Ala
290      295      300
Cys Ile Arg Pro Glu Ile Ser Arg Thr Met Thr Phe Gly Arg Lys Gly
305      310      315      320
Val Ser His Gly Gln Phe Phe Asp Gln His Leu Lys Phe Ile Lys Leu
325      330      335
Asn Gln Gln Phe Val Ser Phe Thr Gln Leu Asp Leu Ser Tyr Leu Gln
340      345      350
Arg Glu Ala Tyr Asp Arg Asp Phe Leu Ala Arg Val Tyr Gly Ala Pro
355      360      365
Leu Leu Gln Val Glu Lys Val Arg Thr Asn Asp Gln Lys Glu Leu Gly
370      375      380
Glu Val Arg Val Gln Tyr Thr Ser Arg Asp Ser Phe Lys Ala Phe Ala
385      390      395      400
Lys Ala Leu Gly Val Met Asp Asp Leu Lys Ser Gly Val Pro Arg Ala
405      410      415
Gly Tyr Arg Gly Ile Val Thr Phe Gln Phe Arg Gly Arg Arg Val His
420      425      430
Leu Ala Pro Pro Arg Ser Trp Glu Gly Tyr Asp Pro Ser Trp Thr
435      440      445

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<210> 10

<211> 445

<212> PRT

<213> Ailuropoda melanoleuca

<400> 10

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Met Leu Lys Lys Gln Ser Ala Gly Leu Val Leu Trp Gly Ala Ile Leu
 1      5      10      15
Phe Val Ala Trp Asn Ala Leu Leu Leu Leu Phe Phe Trp Thr Arg Pro

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eolf-seql

			20					25					30				
Ser	Pro	Gly	Arg	Leu	Pro	Ser	Glu	Ser	Ala	Leu	Asp	Asp	Asp	Pro	Ala		
		35					40					45					
Val	Leu	Thr	Arg	Glu	Val	Ile	Arg	Leu	Ala	Glu	Asp	Ala	Glu	Val	Glu		
	50					55					60						
Leu	Glu	Arg	Gln	Arg	Gly	Leu	Leu	Gln	Gln	Ile	Arg	Glu	His	His	Ala		
65					70					75					80		
Arg	Trp	Ser	Gln	Arg	Trp	Arg	Ala	Pro	Thr	Ala	Thr	Val	Pro	Ala	Pro		
			85						90					95			
Ala	Pro	Ala	Ser	Asn	Ala	Pro	Ala	Val	Ile	Pro	Ile	Leu	Val	Ile	Ala		
			100					105					110				
Cys	Asp	Arg	Ser	Thr	Val	Arg	Arg	Cys	Leu	Asp	Lys	Leu	Leu	His	Tyr		
		115					120					125					
Arg	Pro	Ser	Ala	Glu	His	Phe	Pro	Ile	Ile	Val	Ser	Gln	Asp	Cys	Gly		
	130					135					140						
His	Glu	Glu	Thr	Ala	Gln	Val	Ile	Ala	Ser	Tyr	Gly	Ser	Ala	Val	Thr		
145					150					155					160		
His	Ile	Arg	Gln	Pro	Asp	Leu	Ser	Ser	Ile	Ala	Val	Pro	Pro	Asp	His		
			165						170					175			
Arg	Lys	Phe	Gln	Gly	Tyr	Tyr	Lys	Ile	Ala	Arg	His	Tyr	Arg	Trp	Ala		
		180						185					190				
Leu	Gly	Gln	Val	Phe	His	Arg	Phe	Lys	Phe	Pro	Ala	Ala	Val	Val	Val		
	195						200					205					
Glu	Asp	Asp	Leu	Glu	Val	Ala	Pro	Asp	Phe	Phe	Glu	Tyr	Phe	Gln	Ala		
	210					215					220						
Thr	Tyr	Pro	Leu	Leu	Arg	Ala	Asp	Pro	Ser	Leu	Trp	Cys	Val	Ser	Ala		
225					230					235					240		
Trp	Asn	Asp	Asn	Gly	Lys	Glu	Gln	Met	Val	Asp	Ser	Ser	Lys	Pro	Glu		
			245						250					255			
Leu	Leu	Tyr	Arg	Thr	Asp	Phe	Phe	Pro	Gly	Leu	Gly	Trp	Leu	Leu	Leu		
		260						265					270				
Ala	Glu	Leu	Trp	Ala	Glu	Leu	Glu	Pro	Lys	Trp	Pro	Arg	Ala	Phe	Trp		
	275						280					285					
Asp	Asp	Trp	Met	Arg	Arg	Pro	Glu	Gln	Arg	Gln	Gly	Arg	Ala	Cys	Val		
	290					295					300						
Arg	Pro	Glu	Ile	Ser	Arg	Thr	Met	Thr	Phe	Gly	Arg	Lys	Gly	Val	Ser		
	305				310					315					320		
His	Gly	Gln	Phe	Phe	Asp	Gln	His	Leu	Lys	Phe	Ile	Lys	Leu	Asn	Gln		
			325						330					335			
His	Phe	Val	Pro	Phe	Thr	Gln	Leu	Asp	Leu	Ser	Tyr	Leu	Arg	Gln	Glu		
		340						345					350				
Thr	Tyr	Asp	Arg	Asp	Phe	Leu	Ala	Arg	Val	Tyr	Gly	Ala	Pro	Leu	Leu		
	355						360					365					
Gln	Val	Glu	Lys	Val	Arg	Thr	Ser	Glu	Arg	Asn	Glu	Leu	Gly	Glu	Val		
	370					375					380						
Arg	Val	Gln	Tyr	Thr	Gly	Arg	Asp	Ser	Phe	Lys	Ala	Phe	Ala	Lys	Ala		
	385				390					395				400			
Leu	Gly	Val	Met	Asp	Leu	Lys	Ser	Gly	Val	Pro	Arg	Ala	Gly	Tyr			
			405					410					415				
Arg	Gly	Ile	Val	Ser	Phe	Leu	Phe	Arg	Gly	Arg	Arg	Val	His	Leu	Ala		
		420						425					430				
Pro	Pro	Gln	Thr	Trp	Asp	Gly	Tyr	Asp	Pro	Ser	Trp	Asn					
		435					440					445					

<210> 11
 <211> 447
 <212> PRT
 <213> Sus scrofa

<400> 11
 Met Leu Lys Lys Gln Ser Ala Gly Leu Val Leu Trp Gly Ala Ile Leu
 1 5 10 15
 Phe Val Ala Trp Asn Ala Leu Leu Leu Leu Phe Phe Trp Thr Arg Pro
 20 25 30
 Ala Pro Gly Arg Leu Pro Ser Asp Ser Ala Leu Asp Asp Asp Pro Ala
 35 40 45
 Ser Leu Thr Arg Glu Val Ile Arg Leu Ala Gln Asp Ala Glu Val Glu

eo1f-seq1

50	Leu	Glu	Arg	Gln	Arg	Gly	55	Leu	Leu	Gln	Gln	Ile	60	Arg	Glu	His	His	Ala
65	Arg	Trp	Ser	Gln	Arg	Trp	70	Arg	Val	Pro	Thr	Val	75	Ala	Pro	Pro	Val	80
				85	Val	Thr	Ser	Ala	Pro	Thr	Val	Ile	90	Pro	Ile	95	Leu	Val
			100	Asp	Arg	Ser	Thr	Val	Arg	Arg	Cys	Leu	105	Asp	Lys	110	Leu	Leu
		115	Arg	Pro	Ser	Ala	Glu	120	His	Phe	Pro	Ile	125	Val	Ser	Gln	Asp	
	130	Gly	His	Glu	Glu	Thr	135	Ala	Gln	Val	Ile	Ala	140	Ser	Tyr	Gly	Ser	Ala
145	Val	Thr	His	Ile	Arg	Gln	150	Pro	Asp	Leu	Ser	Asn	155	Ile	Val	Val	Pro	Pro
				165	Phe	Gln	Gly	Tyr	Tyr	Lys	Ile	Ala	170	Arg	His	Tyr	Arg	
	180	Ala	Leu	Gly	Gln	Val	Phe	Glu	Lys	Phe	Lys	Phe	185	Ser	Ala	Ala	Val	
	195	Val	Val	Glu	Asp	Asp	Leu	Glu	Val	Ala	Pro	Asp	200	Phe	Phe	Glu	Tyr	Phe
	210	Gln	Ala	Thr	Tyr	Pro	Leu	Leu	Arg	Ala	Asp	Pro	215	Ser	Leu	Trp	Cys	Val
225	Ser	Ala	Trp	Asn	Asp	Asn	Gly	Lys	Glu	Gln	Met	Val	230	Asp	Ser	Ser	Lys	
				245	Tyr	Arg	Thr	Asp	Phe	Phe	Pro	Gly	250	Leu	Gly	Trp	Leu	
				260	Leu	Leu	Ala	Glu	Leu	Glu	Pro	Lys	265	Trp	Pro	Lys	Ala	
				275	Phe	Trp	Asp	Asp	Trp	Met	Arg	Pro	280	Gln	Gln	Gly	Arg	Ala
	290	Cys	Val	Arg	Pro	Glu	Ile	Ser	Arg	Thr	Met	Thr	295	Phe	Gly	Arg	Lys	Gly
305	Val	Ser	His	Gly	Gln	Phe	Phe	Asp	Gln	His	Leu	Lys	310	Phe	Ile	Lys	Leu	
				325	Asn	Gln	His	Phe	Val	Pro	Phe	Thr	330	Leu	Asp	Leu	Ser	Tyr
				340	Arg	Glu	Ala	Tyr	Asp	Arg	Asp	Phe	345	Leu	Ala	Arg	Val	Tyr
				355	Leu	Leu	Gln	Val	Glu	Lys	Val	Arg	360	Thr	Ser	Glu	Arg	Ser
				370	Glu	Val	Arg	Val	Gln	Tyr	Thr	Ser	375	Arg	Asp	Ser	Phe	Lys
385	Lys	Ala	Leu	Gly	Val	Met	Asp	Asp	Leu	Lys	Ser	Gly	380	Val	Pro	Arg	Ala	
				405	Gly	Tyr	Arg	Gly	Ile	Val	Ser	Phe	410	Leu	Phe	Arg	Gly	Arg
				420	Leu	Ala	Pro	Pro	Glu	Thr	Trp	Asp	425	Gly	Tyr	Asp	Pro	Ser
				435									440					445

<210> 12

<211> 447

<212> PRT

<213> Canis familiaris

<400> 12

Met	Leu	Lys	Lys	Gln	Ser	Ala	Gly	Leu	Val	Leu	Trp	Gly	Ala	Ile	Leu
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Phe	Val	Ala	Trp	Asn	Ala	Leu	Leu	Leu	25	Leu	Phe	Phe	Trp	Thr	Arg
			20										30		Pro
Ser	Pro	Ser	Arg	Leu	Pro	Ser	Asp	Ser	Ala	Leu	Asp	Asp	Asp	Pro	Ala
			35				40					45			
Ser	Leu	Thr	Arg	Glu	Val	Ile	Arg	Leu	Ala	Glu	Asp	Ala	Glu	Val	Glu
			50			55					60				
Leu	Glu	Arg	Gln	Arg	Gly	Leu	Leu	Gln	Gln	Ile	Arg	Glu	His	His	Ala
65				70					75						80
Arg	Trp	Ser	Gln	Arg	Trp	Arg	Val	Pro	Thr	Ala	Ala	Pro	Pro	Ala	Pro

eolf-seql

Asn	Tyr	115	Arg	Pro	Ser	Ala	Glu	120	His	Phe	Pro	Ile	Ile	125	Val	Ser	Gln	Asp
	130						135						140					
Cys	Gly	His	Glu	Glu	Thr	Ala	Gln	Val	Ile	Ala	Ser	Tyr	Gly	Ser	Ala			
145					150					155					160			
Val	Met	His	Ile	Arg	Gln	Pro	Asp	Leu	Ser	Thr	Ile	Ala	Val	Pro	Pro			
				165					170					175				
Asp	His	Arg	Lys	Phe	Gln	Gly	Tyr	Tyr	Lys	Ile	Ala	Arg	His	Tyr	Arg			
		180						185					190					
Trp	Ala	Leu	Gly	Gln	Val	Phe	His	Glu	Phe	Lys	Phe	Pro	Ala	Ala	Val			
	195						200					205						
Val	Val	Glu	Asp	Asp	Leu	Glu	Val	Ala	Pro	Asp	Phe	Phe	Glu	Tyr	Phe			
	210					215						220						
Gln	Ala	Thr	Tyr	Pro	Leu	Leu	Arg	Ala	Asp	Pro	Ser	Leu	Trp	Cys	Val			
225					230					235					240			
Ser	Ala	Trp	Asn	Asp	Asn	Gly	Lys	Glu	Gln	Met	Val	Asp	Ser	Ser	Lys			
			245					250				255						
Pro	Glu	Leu	Leu	Tyr	Arg	Thr	Asp	Phe	Phe	Pro	Gly	Leu	Gly	Trp	Leu			
		260						265				270						
Leu	Leu	Ala	Glu	Leu	Trp	Ala	Glu	Leu	Glu	Pro	Lys	Trp	Pro	Lys	Ala			
	275						280					285						
Phe	Trp	Asp	Asp	Trp	Met	Arg	Arg	Pro	Glu	Gln	Arg	Gln	Gly	Arg	Ala			
	290				295					300								
Cys	Val	Arg	Pro	Glu	Ile	Ser	Arg	Thr	Met	Thr	Phe	Gly	Arg	Lys	Gly			
305					310					315					320			
Val	Ser	His	Gly	Gln	Phe	Phe	Asp	Gln	His	Leu	Lys	Phe	Ile	Lys	Leu			
			325					330					335					
Asn	Gln	His	Phe	Val	Pro	Phe	Thr	Gln	Leu	Asp	Leu	Ser	Tyr	Leu	Arg			
		340						345				350						
Gln	Glu	Thr	Tyr	Asp	Arg	Asp	Phe	Leu	Ala	Arg	Val	Tyr	Gly	Ala	Pro			
	355						360					365						
Leu	Leu	Gln	Val	Glu	Lys	Val	Arg	Thr	Ser	Glu	Arg	Ser	Glu	Leu	Gln			
	370					375					380							
Glu	Val	Arg	Val	Gln	Tyr	Thr	Ser	Arg	Asp	Ser	Phe	Lys	Ala	Phe	Ala			
385					390					395					400			
Lys	Ala	Leu	Gly	Val	Met	Asp	Asp	Leu	Lys	Ser	Gly	Val	Pro	Arg	Ala			
			405					410					415					
Gly	Tyr	Arg	Gly	Ile	Val	Ser	Phe	Leu	Tyr	Arg	Gly	Arg	Arg	Val	His			
		420						425				430						
Leu	Ala	Pro	Pro	Gln	Thr	Trp	Asp	Gly	Tyr	Asp	Pro	Ser	Trp	Asn				
	435						440					445						

<210> 14
 <211> 447
 <212> PRT
 <213> Equus caballus

<400> 14

Met	Leu	Lys	Lys	Gln	Ser	Ala	Gly	Leu	Val	Leu	Trp	Gly	Ala	Ile	Leu
1				5				10					15		
Phe	Val	Ala	Trp	Asn	Ala	Leu	Leu	Leu	Phe	Phe	Trp	Met	Arg	Pro	
		20					25				30				
Ser	Pro	Ser	Arg	Leu	Pro	Ser	Asp	Gly	Thr	Leu	Asp	Asp	Pro	Thr	
		35				40					45				
Gly	Leu	Thr	Arg	Lys	Val	Ile	His	Leu	Ala	Gln	Asp	Val	Glu	Val	Glu
	50					55				60					
Leu	Glu	Arg	Gln	Arg	Gly	Leu	Leu	Gln	Gln	Ile	Arg	Glu	His	His	Ala
65					70				75					80	
Arg	Trp	Ser	Gln	Trp	Arg	Val	Pro	Thr	Val	Pro	Pro	Pro	Val	Pro	
			85				90						95		
Pro	His	Val	Ser	Val	Thr	Ser	Leu	Pro	Ala	Val	Ile	Pro	Ile	Leu	Val
		100					105					110			
Ile	Ala	Cys	Asp	Arg	Ser	Thr	Val	Arg	Arg	Cys	Leu	Asp	Lys	Leu	Leu
	115					120					125				
His	Tyr	Arg	Pro	Ser	Ala	Glu	His	Phe	Pro	Ile	Ile	Val	Ser	Gln	Asp
	130					135				140					
Cys	Gly	His	Glu	Glu	Thr	Ala	Gln	Val	Ile	Ala	Ser	Tyr	Gly	Ser	Ala

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145	Val	Thr	His	Ile	Arg	Gln	Pro	Asp	Leu	Ser	Asn	Ile	Ala	Val	Pro	Pro
				165	Phe	Gln	Gly	Tyr	Tyr	Lys	Ile	Ala	Arg	His	Tyr	Arg
Asp	His	Arg	Lys													
			180	Gln	Val	Phe	His	Arg	Phe	Lys	Phe	Pro	Ala	Ala	Val	
Trp	Ala	Leu	195													
Val	Val	Glu	Asp	Asp	Leu	Glu	Val	Ala	Pro	Asp	Phe	Phe	Glu	Tyr	Phe	
Gln	Ala	Thr	Tyr	Pro	Leu	Leu	Arg	Ala	Asp	Pro	Ser	Leu	Trp	Cys	Val	
225					230											
Ser	Ala	Trp	Asn	Asp	Asn	Gly	Lys	Glu	Gln	Met	Val	Asp	Ser	Ser	Lys	
Pro	Glu	Leu	Leu	Tyr	Arg	Thr	Asp	Phe	Phe	Pro	Gly	Leu	Gly	Trp	Leu	
Leu	Leu	Ala	Glu	Leu	Trp	Ala	Glu	Leu	Glu	Pro	Lys	Trp	Pro	Lys	Ala	
Phe	Trp	Asp	Asp	Trp	Met	Arg	Arg	Pro	Glu	Gln	Arg	Gln	Gly	Arg	Ala	
Cys	Val	Arg	Pro	Glu	Ile	Ser	Arg	Thr	Met	Thr	Phe	Gly	Arg	Ile	Gly	
305					310											
Val	Ser	His	Gly	Gln	Phe	Phe	Asp	Gln	His	Leu	Lys	Phe	Ile	Lys	Leu	
Asn	Gln	His	Phe	Val	Pro	Phe	Thr	Gln	Leu	Asp	Leu	Ser	Tyr	Leu	Arg	
Gln	Glu	Ala	Tyr	Asp	Lys	Asp	Phe	Leu	Ala	Arg	Val	Tyr	Gly	Ala	Pro	
Leu	Leu	Gln	Val	Glu	Lys	Val	Arg	Thr	Gly	Glu	Arg	Ser	Glu	Leu	Gly	
Glu	Val	Arg	Val	Gln	Tyr	Thr	Gly	Arg	Asp	Ser	Phe	Lys	Ala	Phe	Ala	
385					390											
Lys	Ala	Leu	Gly	Val	Met	Asp	Asp	Leu	Lys	Ser	Gly	Val	Pro	Arg	Ala	
Gly	Tyr	Arg	Gly	Ile	Val	Ser	Phe	Leu	Phe	Arg	Gly	Arg	Arg	Val	His	
Leu	Ala	Pro	Pro	Gln	Thr	Trp	Glu	Gly	Tyr	Asp	Pro	Ser	Trp	Asn		

<210> 15
 <211> 447
 <212> PRT
 <213> Monodelphis domestica

<400> 15

Met	Leu	Lys	Lys	Gln	Ser	Ala	Gly	Leu	Val	Leu	Trp	Gly	Ala	Ile	Leu	
1				5					10					15		
Phe	Val	Ala	Trp	Asn	Ala	Leu	Leu	Leu	Phe	Phe	Phe	Trp	Ala	Arg	Pro	
Leu	Pro	Gly	Gly	Pro	Ser	Ser	Glu	Asp	Pro	Phe	Ala	Asn	Asp	Pro	Ala	
Ser	Leu	Ser	Arg	Arg	Val	Ile	Arg	Leu	Ala	Gln	Glu	Ala	Glu	Ile	Glu	
Leu	Glu	Arg	Gln	His	Val	Leu	Leu	Gln	Gln	Ile	Gln	Lys	His	Ser	Val	
65																
Leu	Trp	Asn	Gln	Arg	Gln	Gln	Val	Ala	Thr	Ala	Gly	Pro	Pro	Ala	Val	
Ser	His	Pro	Thr	Val	Ala	Pro	Thr	Thr	Phe	Val	Leu	Pro	Ile	Leu	Val	
Ile	Ala	Cys	Asp	Arg	Ser	Thr	Val	Arg	Arg	Cys	Leu	Asp	Lys	Leu	Leu	
His	Tyr	Arg	Pro	Ser	Ala	Glu	Arg	Phe	Pro	Ile	Ile	Val	Ser	Gln	Asp	
Cys	Gly	His	Lys	Val	Thr	Ala	Gln	Val	Ile	Ala	Ser	Tyr	Gly	Asn	Ala	
145																
Ile	Met	His	Ile	Lys	Gln	Pro	Asp	Leu	Ser	Ser	Ile	Pro	Val	Pro	Thr	
Glu	His	Arg	Lys	Phe	Gln	Gly	Tyr	Tyr	Lys	Ile	Ala	Arg	His	Tyr	Arg	

eolf-seq1

Trp	Ala	Leu	180	Asn	Gln	Val	Phe	Arg	185	Thr	Phe	Lys	Tyr	Gln	190	Ala	Ala	Val
Val	Val	Glu	195	Asp	Asp	Leu	Glu	Val	200	Ala	Pro	Asp	Phe	Phe	205	Glu	Tyr	Phe
Gln	Ala	Thr	210	Tyr	Pro	Leu	215	Arg	Thr	Asp	Pro	Ser	Leu	Trp	Cys	Val		
225	Ala	Trp	230	Asn	Asp	Asn	Gly	Lys	Glu	Gln	Met	Val	Asp	Ala	Lys	Arg		
Ser	Ala	Trp	245	Tyr	Arg	Thr	Asp	Phe	250	Phe	Pro	Gly	Leu	Gly	Trp	Leu		
Pro	Asp	Leu	260	Glu	Leu	Trp	Asp	Glu	265	Leu	Glu	Pro	Lys	Trp	Pro	Lys	Ala	
Leu	Leu	Ala	275	Asp	Trp	Met	Arg	Gln	280	Pro	Glu	Gln	Arg	Arg	Asp	Arg	Ala	
Phe	Trp	Asp	290	Pro	Glu	Ile	Ser	Arg	295	Thr	Met	Thr	Phe	Gly	Arg	Lys	Gly	
Cys	Leu	Arg	305	Gln	Gly	Gln	Phe	Phe	310	Asp	Gln	His	Leu	Lys	Phe	Ile	Lys	320
Val	Ser	Gln	325	Phe	Phe	Thr	Gln	Leu	330	Asp	Leu	Ser	Tyr	Leu	Lys			
Asn	Gln	Gly	340	Tyr	Asp	Arg	Asp	Phe	345	Ser	Ala	Arg	Val	Tyr	Ala	Ala	Pro	
Gln	Glu	Ala	355	Val	Glu	Glu	Leu	Lys	360	Ser	Asn	Gln	Lys	Gln	Glu	Leu	Gly	
Gln	Val	Gln	370	Val	Gln	Tyr	Arg	Gly	375	Arg	Asp	Ser	Phe	Arg	Ala	Phe	Ala	
Glu	Val	Arg	385	Val	Met	Asp	Asp	Leu	390	Lys	Ser	Gly	Val	Pro	Arg	Ala		
Lys	Ala	Leu	405	Gly	Val	Ser	Phe	Leu	410	Phe	Arg	Gly	Arg	Arg	Val	Tyr		
Ser	Tyr	Arg	420	Ile	Val	Thr	Gly	Tyr	425	Asp	Pro	Ser	Trp	Ser				
Leu	Ala	Pro	435	Gln	Asp	Trp	Thr	Gly	440									

<210> 16
 <211> 438
 <212> PRT
 <213> Salmo salar

<400> 16

Met	Leu	Arg	Lys	Arg	Gly	Ser	Ala	Ile	Leu	Cys	Gly	Ala	Phe	Leu	Phe
1				5					10				15		
Val	Ala	Trp	Asn	Ala	Val	Val	Val	Leu	Tyr	Leu	Trp	Gly	Arg	Pro	Leu
			20					25				30			
Ser	Gly	Arg	Glu	Glu	Arg	Glu	Met	Asp	Gly	Gly	Arg	Gly	Gly	Ala	Asp
		35				40					45				
Leu	Ala	Gly	Asp	Val	Ile	His	Met	Ala	Glu	Ala	Phe	Glu	Ala	Glu	Leu
	50				55				60						
Glu	Met	Gln	Arg	Lys	Ile	Leu	Leu	Gln	Ile	Gln	Gly	His	Arg	Ser	Leu
65			70					75				80			
Trp	Glu	Gln	Pro	Asn	Glu	Asn	Gly	Ala	Ser	Arg	Ile	Gly	Pro	Pro	Gln
			85					90				95			
Val	Val	Ile	Pro	Ile	Leu	Val	Ile	Ala	Cys	Asn	Arg	Val	Thr	Val	Lys
			100					105				110			
Arg	Cys	Leu	Asp	Lys	Leu	Leu	Glu	Tyr	Arg	Pro	Ser	Ala	Glu	Leu	Tyr
		115					120					125			
Pro	Ile	Ile	Val	Ser	Gln	Asp	Cys	Gly	His	Ala	Glu	Thr	Ala	Gln	Val
	130				135						140				
Ile	Gly	Ser	Tyr	Gly	Ser	Gln	Val	Thr	His	Leu	Lys	Gln	Pro	Asp	Leu
145			150					155							
Ser	Asp	Ile	Ala	Val	Arg	Pro	Glu	His	Lys	Lys	Phe	Gln	Gly	Tyr	Tyr
		165						170				175			
Lys	Ile	Ser	Arg	His	Tyr	Arg	Trp	Ala	Leu	Asn	Gln	Val	Phe	Asn	Ser
		180						185				190			
Leu	Ser	His	Ser	Ser	Val	Val	Ile	Val	Glu	Asp	Asp	Leu	Glu	Val	Ala
		195					200					205			
Pro	Asp	Phe	Phe	Glu	Tyr	Phe	Arg	Ser	Leu	His	Pro	Ile	Leu	Lys	Ser

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210	215	220
Asp Leu Ser Leu Trp Cys Val Ser Ala Trp Asn Asp Asn Gly Arg Asp		
225 Gly Tyr Val Asp Pro Ala Lys Ala Asp Leu Leu Tyr Arg Thr Asp Phe		
Phe Pro Gly Leu Gly Trp Met Met Leu Lys Glu Leu Trp Val Glu Leu		
Glu Pro Lys Trp Pro Gly Ala Phe Trp Asp Asp Trp Met Arg Gln Pro		
Asp Gln Arg Arg Asp Arg Ala Cys Ile Arg Pro Glu Ile Ser Arg Thr		
Leu Thr Phe Gly Arg Lys Gly Val Ser Leu Gly Gln Phe Tyr Asp Lys		
305 Tyr Leu Arg Tyr Ile Lys Leu Asn Ser Glu Phe Val Pro Phe Thr Lys		
Leu Asp Leu Ala Tyr Leu Lys Glu Glu Lys Tyr Lys Glu Ile Phe Glu		
Lys Gln Val Tyr Ser Ala Pro Leu Val Lys Tyr Glu Glu Val Gln Arg		
Gly Gln Leu Lys Gly Ala Gly Pro Phe Cys Leu His Tyr Leu Ser Lys		
Asp Gly Phe Lys Val Leu Ala Lys Asn Leu Gly Val Met Glu Asp Leu		
385 Lys Ser Gly Val Pro Arg Thr Gly Tyr Arg Gly Val Val Ser Phe Leu		
Ser Arg Gly Arg Arg Ile Phe Leu Ala Pro Pro Pro Gly Trp Ser Lys		
Tyr Asp Pro Thr Trp Ser		
435		

<210> 17
 <211> 452
 <212> PRT
 <213> Danio rerio

<400> 17
Met Leu Arg Lys Arg Ser Pro Leu Val Ile Cys Gly Ala Phe Ile Phe
1 Val Ala Trp Asn Val Val Leu Leu Phe Val Leu Met Arg Arg Pro Ser
Ser Pro Gly Thr Phe Asn Asn Gln Asp Lys Pro Gly Glu Thr Glu His
Arg Ala Glu Gly Gly Lys Phe Gly Asn Ile Met Asn Glu Val Ile Arg
Val Ala Asp Ala Phe Glu Ala Glu Leu Ala Ala Gln Lys Lys Ile Leu
65 Gln Gln Ile Gln Ser His Trp Ser Val Trp Asp Ser Lys Asp Gly Val
Ile Pro Glu Lys Ser Lys Ser Glu Val Glu His Thr Ala Pro Val Val
Ile Pro Ile Leu Val Ile Ala Cys Asn Arg Val Thr Val Lys Arg Cys
Leu Asp Lys Leu Ile Glu His Arg Pro Ser Ala Glu Leu His Pro Ile
Ile Val Ser Gln Asp Cys Gly His Arg Glu Thr Ser Asp Val Ile Gly
145 Ser Tyr Gly Ser Gln Leu Thr His Ile Lys Gln Pro Asp Leu Ser Asp
Val Ala Val Pro Gln His Lys Lys Phe Gln Gly Tyr Tyr Lys Ile
Ser Arg His Tyr Lys Trp Ala Leu Ser Gln Val Phe Asn Thr Phe Ser
Tyr Ser Ser Val Val Val Val Glu Asp Asp Leu Glu Val Ala Pro Asp
Phe Phe Glu Tyr Phe Arg Ala Leu His Pro Met Leu Lys Ser Asp Pro
225 Thr Leu Trp Cys Val Ser Ala Trp Asn Asp Asn Gly Arg Asp Gly Phe

eolf-seq1

Val	Asp	Pro	Gly	Lys	Ala	Ser	Leu	Leu	Tyr	Arg	Thr	Asp	Phe	Phe	Pro
			260	245				250					270		
Gly	Leu	Gly	Trp	Met	Leu	Thr	Lys	Asp	Leu	Trp	Ala	Glu	Leu	Glu	Pro
		275					280					285			
Lys	Trp	Pro	Ala	Ser	Phe	Trp	Asp	Asp	Trp	Met	Arg	His	Pro	Asp	Gln
		290				295					300				
Arg	Lys	Asp	Arg	Ser	Cys	Ile	Arg	Pro	Glu	Ile	Ser	Arg	Thr	Leu	Thr
305					310					315					320
Phe	Gly	Arg	Lys	Gly	Val	Ser	Leu	Gly	Gln	Phe	Tyr	Asp	Lys	Tyr	Leu
				325					330					335	
Arg	Phe	Ile	Lys	Leu	Asn	Thr	Glu	Phe	Val	Pro	Phe	Thr	Lys	Met	Asp
			340					345					350		
Leu	Ser	Tyr	Leu	Glu	Lys	Glu	Lys	Tyr	Asp	Glu	Ser	Phe	Glu	Lys	Glu
		355					360					365			
Val	Tyr	Ala	Ala	Ser	Leu	Val	Thr	Leu	Glu	Asp	Leu	Lys	Ser	Gly	Lys
		370				375					380				
Leu	Ser	Gly	Ser	Gly	Pro	Phe	Arg	Val	Gln	Tyr	Ser	Ser	Pro	Asp	Ser
385					390					395					400
Phe	Lys	Ser	Leu	Ala	Arg	Asn	Leu	Gly	Val	Met	Asp	Asp	Leu	Lys	Ser
				405					410					415	
Gly	Val	Pro	Arg	Ala	Gly	Tyr	Arg	Gly	Ala	Val	Ser	Phe	Leu	Leu	Arg
			420					425					430		
Gly	Lys	Arg	Val	Tyr	Leu	Ala	Pro	Pro	Ala	Gly	Trp	Ser	Arg	Tyr	Asp
		435					440					445			
Pro	Ser	Trp	Ser												
		450													

<210> 18
 <211> 448
 <212> PRT
 <213> Xenopus laevis

<400> 18

Met	Pro	Arg	Lys	Val	Ser	Val	Ala	Ala	Trp	Gly	Ala	Ala	Leu	Phe	Ile
1				5					10					15	
Ser	Trp	Asn	Ala	Ile	Leu	Leu	Leu	Tyr	Leu	Met	Ser	Arg	Ser	Arg	Gly
		20						25					30		
Thr	Asp	His	Ser	Asp	Leu	Thr	Ala	His	Val	Ile	Gln	Leu	Ala	Glu	Ala
		35					40					45			
Ala	Glu	Ala	Glu	Leu	Glu	Lys	Gln	Lys	Gly	Leu	Leu	Gln	Gln	Ile	His
		50				55					60				
His	Tyr	Ser	Gly	Leu	Leu	Asn	Gln	Gln	Gln	Pro	Ser	Ser	His	Val	Arg
65				70					75					80	
Leu	Ala	Pro	Leu	Met	Pro	Ile	Lys	Asn	Leu	Asn	Val	Ser	Ser	Pro	Phe
				85					90					95	
Pro	Ser	Pro	Val	Gly	Ser	Gly	Pro	Leu	Pro	Leu	Val	Ile	Pro	Ile	Leu
			100					105					110		
Val	Val	Ala	Cys	Asp	Arg	Pro	Ser	Val	Arg	Arg	Cys	Leu	Asp	Ser	Leu
		115					120					125			
Leu	Lys	Tyr	Arg	Pro	Ser	Ala	Glu	Lys	Phe	Pro	Ile	Ile	Val	Ser	Gln
		130				135					140				
Asp	Cys	Gly	His	Glu	Glu	Thr	Gly	Lys	Val	Ile	Asp	Ser	Tyr	Gly	Asp
145				150					155						160
Ala	Val	Thr	His	Ile	Lys	Gln	Pro	Asp	Leu	Ser	Glu	Val	Ala	Val	Pro
				165					170					175	
Pro	Glu	His	Arg	Lys	Phe	Gln	Gly	Tyr	Tyr	Lys	Ile	Ser	Arg	His	Tyr
			180					185					190		
Arg	Trp	Ala	Leu	Asn	Gln	Ile	Phe	Lys	Ser	Met	Gly	Tyr	Lys	Ala	Ala
		195					200					205			
Ile	Val	Val	Glu	Asp	Asp	Leu	Glu	Val	Ala	Pro	Asp	Phe	Tyr	Glu	Tyr
		210				215					220				
Phe	Gln	Ala	Thr	Leu	Pro	Leu	Leu	Gln	Lys	Asp	Arg	Met	Leu	Trp	Cys
225					230					235					240
Val	Ser	Ala	Trp	Asn	Asp	Asn	Gly	Lys	Glu	Ala	Leu	Ile	Asp	Pro	Gly
				245					250					255	
Gly	Thr	Ser	Leu	Leu	Tyr	Arg	Ser	Asp	Phe	Phe	Pro	Gly	Leu	Gly	Trp

eo1f-seq1

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                260                265                270
Leu Leu Leu Arg Glu Leu Trp Glu Glu Leu Glu Pro Lys Trp Pro Ser
                275                280                285
Ala Phe Trp Asp Asp Trp Val Arg Arg Pro Glu Gln Arg Leu Asp Arg
                290                295                300
Ala Cys Val Arg Pro Glu Leu Ser Arg Thr Arg Thr Phe Gly Arg Lys
305                310                315                320
Gly Val Ser Gln Gly Gln Phe Phe Asp Gln His Leu Arg Phe Ile Lys
                325                330                335
Leu Asn Gln Asp Leu Val Pro Phe Thr Lys Met Asp Leu Ser Tyr Leu
                340                345                350
Leu Lys Asp Thr Tyr Asp Pro Trp Phe Leu Glu Gln Val Tyr Gly Ala
                355                360                365
Pro Lys Ala Arg Ala Glu Glu Val Leu His Gly Gln Val Pro Gly Gly
                370                375                380
Arg Thr Val Arg Val Glu Tyr Thr Thr Lys Asp Thr Phe Lys Ala Met
385                390                395                400
Ala Arg Ala Phe Gly Val Met Glu Asp Leu Lys Ser Gly Val Ala Arg
                405                410                415
Ala Ala Tyr Lys Gly Val Val Ser Phe Ser His Arg Gly Arg Arg Val
                420                425                430
Phe Leu Ala Pro Pro Lys Asp Trp Thr Gly Tyr Asp Pro Leu Trp Asn
                435                440                445

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<210> 19

<211> 458

<212> PRT

<213> *Drosophila melanogaster*

<400> 19

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Met Arg Thr Arg Lys Val Leu Leu Val Ile Gly Phe Leu Val Thr Trp
 1                5                10                15
Thr Tyr Ala Thr Tyr Tyr Leu Leu Leu Arg Gln Thr Gly Ile His Thr
                20                25                30
Ser Arg His Gln Ser Leu Gln Ala Tyr Lys Leu Asn Ser Gln Ala Arg
                35                40                45
Asp Ala Asn Met Gln Ser His His Leu Ala Lys Asn Val Phe Glu Phe
                50                55                60
Val Lys Leu Lys Tyr Leu Glu Lys Gln Pro Pro Ser Val Ala Ser Thr
65                70                75                80
Pro Gln Ile Ser Ile Ala Ala Glu Ile Ser Ala Glu Leu Pro Glu
                85                90                95
Gln His Val Ala Lys Ser Ala Thr Ala Arg Ile Pro Thr Lys Thr Tyr
                100                105                110
Leu Ala Asn Gly Glu Pro Val Phe Pro Val Val Val Phe Ala Cys Asn
                115                120                125
Arg Val Ser Val Lys Lys Cys Ile Asp Asn Leu Val Gln Tyr Arg Pro
                130                135                140
Ser Val Glu Gln Phe Pro Ile Ile Val Ser Gln Asp Cys Gly Asp Glu
145                150                155                160
Pro Thr Lys Glu Ala Ile Leu Ser Tyr Gly Lys Gln Val Thr Leu Ile
                165                170                175
Glu Gln Pro Asp Leu Ser Asp Ile Thr Val Leu Pro Lys Glu Lys Lys
                180                185                190
Phe Lys Gly Tyr Tyr Lys Ile Ala Arg His Tyr Gly Trp Ala Leu Asn
                195                200                205
Thr Thr Phe Ala Val Gly Phe Glu Phe Val Ile Ile Val Glu Asp Asp
                210                215                220
Leu Asn Val Ala Pro Asp Phe Phe Glu Tyr Phe Leu Gly Thr His Lys
225                230                235                240
Leu Leu Lys Gln Asp Pro Ser Leu Trp Cys Val Ser Ala Trp Asn Asp
                245                250                255
Asn Gly Lys Ala Ala Val Val Asp Ala Ala Gln Pro Glu Leu Leu Tyr
                260                265                270
Arg Thr Asp Phe Phe Pro Gly Leu Gly Trp Met Leu Thr Lys Asp Leu
275                280                285
Trp Ala Glu Leu Ser Val Lys Trp Pro Lys Ser Phe Trp Asp Asp Trp

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eolf-seq1

290	Ile Arg His Pro Ala Gln	295	Arg Lys Asp Arg Val Cys	300	Ile Arg Pro Glu
305	Ile Ser Arg Thr Arg Thr	310	Phe Gly Lys Ile Gly Val	315	Ser Asn Gly Leu
	Phe Phe Asp Lys Tyr Leu	325	Lys His Ile Lys Leu	330	Ser Glu Asp Phe Val
	Gln Phe Thr Lys Ile Asn	340	Met Ser Tyr Leu Leu	345	Lys Asp Asn Tyr Asp
	Asn Thr Phe Leu Arg Arg	355	Val Tyr Thr Tyr Pro	360	Ile Val Thr Tyr Asp
	Glu Leu Arg Arg Asn Leu	370	Ile Arg Ile Glu Gly	375	Pro Val Arg Ile Gln
385	Tyr Thr Thr Arg Glu Gln	390	Tyr Lys Arg Thr Thr	395	Lys Met Leu Gly Leu
	Met Asp Asp Phe Lys Ser	405	Gly Val Pro Arg Thr	410	Ala Tyr His Gly Ile
	Val Ser Phe Tyr Tyr Asn	420	Lys Arg Arg Val His	425	Leu Ala Pro Asn Ala
	Asn Trp Lys Gly Tyr Glu	435	Leu Ser Trp Ser	440	
450		455		455	

<210> 20
 <211> 447
 <212> PRT
 <213> Homo sapiens

<400> 20

Met Arg Phe Arg Ile Tyr	Lys Arg Lys Val Leu Ile Leu Thr	Leu Val
Val Ala Ala Cys Gly Phe	Val Leu Trp Ser Ser Asn Gly Arg	Gln Arg
Lys Asn Glu Ala Leu Ala	Pro Pro Leu Leu Asp Ala Glu	Pro Ala Arg
Gly Ala Gly Gly Arg Gly	Gly Asp His Pro Ser Val Ala	Val Gly Ile
Arg Arg Val Ser Asn Val	Ser Ala Ala Ser Leu Val	Pro Ala Val Pro
Gln Pro Glu Ala Asp Asn	Leu Thr Leu Arg Tyr Arg	Ser Leu Val Tyr
Gln Leu Asn Phe Asp Gln	Thr Leu Arg Asn Val Asp	Lys Ala Gly Thr
Trp Ala Pro Arg Glu Leu	Val Leu Val Val Gln Val	His Asn Arg Pro
Glu Tyr Leu Arg Leu Leu	Leu Asp Ser Leu Arg Lys	Ala Gln Gly Ile
Asp Asn Val Leu Val Ile	Phe Ser His Asp Phe Trp	Ser Thr Glu Ile
Asn Gln Leu Ile Ala Gly	Val Asn Phe Cys Pro Val	Leu Gln Val Phe
Phe Pro Phe Ser Ile Gln	Leu Tyr Pro Asn Glu	Phe Pro Gly Ser Asp
Pro Arg Asp Cys Pro Arg	Asp Leu Pro Lys Asn Ala	Ala Leu Lys Leu
Gly Cys Ile Asn Ala Glu	Tyr Pro Asp Ser Phe Gly	His Tyr Arg Glu
Ala Lys Phe Ser Gln Thr	Lys His His Trp Trp	Lys Leu His Phe
Val Trp Glu Arg Val Lys	Ile Leu Arg Asp Tyr	Ala Gly Leu Ile Leu
Phe Leu Glu Glu Asp His	Tyr Leu Ala Pro Asp	Phe Tyr His Val Phe
Lys Lys Met Trp Lys Leu	Lys Gln Glu Cys Pro Glu	Cys Asp Val
Leu Ser Leu Gly Thr Tyr	Ser Ala Ser Arg Ser Phe	Tyr Gly Met Ala
Asp Lys Val Asp Val Lys	Thr Trp Lys Ser Thr	Glu His Asn Met Gly

eolf-seql

305	Leu	Ala	Leu	Thr	Arg	310	Asn	Ala	Tyr	Gln	Lys	315	Leu	Ile	Glu	Cys	Thr	320	Asp
					325						330						335		
Thr	Phe	Cys	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Thr	Leu	Gln	Tyr				
			340					345								350			
Leu	Thr	Val	Ser	Cys	Leu	Pro	Lys	Phe	Trp	Lys	Val	Leu	Val	Pro	Gln				
		355					360					365							
Ile	Pro	Arg	Ile	Phe	His	Ala	Gly	Asp	Cys	Gly	Met	His	His	Lys	Lys				
	370					375					380								
Thr	Cys	Arg	Pro	Ser	Thr	Gln	Ser	Ala	Gln	Ile	Glu	Ser	Leu	Leu	Asn				
385					390					395					400				
Asn	Asn	Lys	Gln	Tyr	Met	Phe	Pro	Glu	Thr	Leu	Thr	Ile	Ser	Glu	Lys				
			405						410					415					
Phe	Thr	Val	Val	Ala	Ile	Ser	Pro	Pro	Arg	Lys	Asn	Gly	Gly	Trp	Gly				
		420						425				430							
Asp	Ile	Arg	Asp	His	Glu	Leu	Cys	Lys	Ser	Tyr	Arg	Arg	Leu	Gln					
		435					440					445							

<210> 21

<211> 447

<212> PRT

<213> Pan troglodytes

<400> 21

Met	Arg	Phe	Arg	Ile	Tyr	Lys	Arg	Lys	Val	Leu	Ile	Leu	Thr	Leu	Val
1				5				10						15	
Val	Ala	Ala	Cys	Gly	Phe	Val	Leu	Trp	Ser	Ser	Asn	Gly	Arg	Gln	Arg
			20					25				30			
Lys	Asn	Glu	Ala	Leu	Ala	Pro	Pro	Leu	Leu	Asp	Ala	Glu	Pro	Ala	Arg
		35				40					45				
Gly	Ala	Gly	Gly	Arg	Gly	Gly	Asp	His	Pro	Ser	Val	Ala	Val	Gly	Ile
	50				55				60						
Arg	Arg	Val	Ser	Asn	Val	Ser	Ala	Ala	Pro	Leu	Val	Pro	Ala	Val	Pro
65				70					75					80	
Gln	Pro	Glu	Ala	Asp	Asn	Leu	Thr	Leu	Arg	Tyr	Arg	Ser	Leu	Val	Tyr
			85					90					95		
Gln	Leu	Asn	Phe	Asp	Gln	Thr	Leu	Arg	Asn	Val	Asp	Lys	Ala	Gly	Thr
		100					105					110			
Trp	Ala	Pro	Arg	Glu	Leu	Val	Leu	Val	Val	Gln	Val	His	Asn	Arg	Pro
	115					120					125				
Glu	Tyr	Leu	Arg	Leu	Leu	Leu	Asp	Ser	Leu	Arg	Lys	Ala	Gln	Gly	Ile
	130				135					140					
Asp	Asn	Val	Leu	Val	Ile	Phe	Ser	His	Asp	Phe	Trp	Ser	Thr	Glu	Ile
145				150					155					160	
Asn	Gln	Leu	Ile	Ala	Gly	Val	Asn	Phe	Cys	Pro	Val	Leu	Gln	Val	Phe
			165					170					175		
Phe	Pro	Phe	Ser	Ile	Gln	Leu	Tyr	Pro	Asn	Glu	Phe	Pro	Gly	Ser	Asp
		180					185					190			
Pro	Arg	Asp	Cys	Pro	Arg	Asp	Leu	Pro	Lys	Asn	Ala	Ala	Leu	Lys	Leu
	195					200					205				
Gly	Cys	Ile	Asn	Ala	Glu	Tyr	Pro	Asp	Ser	Phe	Gly	His	Tyr	Arg	Glu
	210				215					220					
Ala	Lys	Phe	Ser	Gln	Thr	Lys	His	His	Trp	Trp	Trp	Lys	Leu	His	Phe
225				230					235					240	
Val	Trp	Glu	Arg	Val	Lys	Ile	Leu	Arg	Asp	Tyr	Ala	Gly	Leu	Val	Leu
			245					250					255		
Phe	Leu	Glu	Glu	Asp	His	Tyr	Leu	Ala	Pro	Asp	Phe	Tyr	His	Val	Phe
		260					265					270			
Lys	Lys	Met	Trp	Lys	Leu	Lys	Gln	Glu	Cys	Pro	Glu	Cys	Asp	Val	
	275					280					285				
Leu	Ser	Leu	Gly	Thr	Tyr	Ser	Ala	Ser	Arg	Ser	Phe	Tyr	Gly	Met	Ala
	290				295					300					
Asp	Lys	Val	Asp	Val	Lys	Thr	Trp	Lys	Ser	Thr	Glu	His	Asn	Met	Gly
305					310				315					320	
Leu	Ala	Leu	Thr	Arg	Asn	Ala	Tyr	Gln	Lys	Leu	Ile	Glu	Cys	Thr	Asp
			325						330				335		
Thr	Phe	Cys	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Thr	Leu	Gln	Tyr

eo1f-seq1

Leu	Thr	Val	340	Ser	Cys	Leu	Pro	Lys	345	Phe	Trp	Lys	Val	Leu	Val	Pro	Gln
			355						360								
Val	Pro	Arg	Ile	Phe	His	Ala	Gly	Asp	Cys	Gly	Met	His	His	Lys	Lys		
			370														
Thr	Cys	Arg	Pro	Ser	Thr	Gln	Ser	Ala	Gln	Ile	Glu	Ser	Leu	Leu	Asn		
385					390					395					400		
Asn	Asn	Lys	Gln	Tyr	Met	Phe	Pro	Glu	Thr	Leu	Thr	Ile	Ser	Glu	Lys		
				405						410					415		
Phe	Thr	Val	Val	Ala	Ile	Ser	Pro	Pro	Arg	Lys	Asn	Gly	Gly	Trp	Gly		
			420					425					430				
Asp	Ile	Arg	Asp	His	Glu	Leu	Cys	Lys	Ser	Tyr	Arg	Arg	Leu	Gln			
		435					440					445					

<210> 22

<211> 447

<212> PRT

<213> Oryctolagus cuniculus

<400> 22

Met	Arg	Phe	Arg	Ile	Tyr	Lys	Arg	Lys	Val	Leu	Ile	Leu	Thr	Leu	Val		
1				5					10					15			
Val	Ala	Ala	Cys	Gly	Phe	Val	Leu	Trp	Ser	Ser	Asn	Gly	Arg	Gln	Arg		
			20					25					30				
Lys	Asn	Glu	Ala	Leu	Ala	Pro	Pro	Leu	Leu	Asp	Ala	Glu	Pro	Ala	Arg		
		35					40					45					
Ala	Ala	Gly	Gly	Arg	Gly	Gly	Asp	His	Pro	Ala	Val	Ser	Val	Gly	Ile		
		50			55						60						
Arg	Arg	Val	Ser	Asn	Glu	Ser	Ala	Ala	Pro	Leu	Val	Pro	Ala	Ala	Ala		
65				70						75					80		
Gln	Pro	Glu	Ala	Asp	Asn	Gln	Thr	Leu	Arg	Tyr	Arg	Ser	Leu	Val	Tyr		
			85						90					95			
Gln	Leu	Asn	Phe	Asp	Gln	Thr	Leu	Arg	Asn	Val	Asp	Lys	Ala	Gly	Ser		
			100					105					110				
Trp	Ala	Pro	Arg	Glu	Leu	Val	Leu	Val	Val	Gln	Val	His	Asn	Arg	Leu		
		115					120					125					
Glu	Tyr	Leu	Arg	Leu	Leu	Leu	Asp	Ser	Leu	Arg	Lys	Ala	Gln	Gly	Ile		
		130			135						140						
Glu	Asp	Val	Leu	Val	Ile	Phe	Ser	His	Asp	Phe	Trp	Ser	Pro	Glu	Ile		
145				150						155				160			
Asn	Gln	Leu	Ile	Ala	Gly	Val	Asp	Phe	Cys	Pro	Ile	Leu	Gln	Val	Phe		
			165						170					175			
Phe	Pro	Phe	Ser	Ile	Gln	Leu	Tyr	Pro	Asn	Glu	Phe	Pro	Gly	Ser	Asp		
			180					185					190				
Pro	Arg	Asp	Cys	Pro	Arg	Asp	Leu	Gln	Lys	Asn	Ala	Ala	Leu	Lys	Leu		
		195					200					205					
Gly	Cys	Ile	Asn	Ala	Glu	Tyr	Pro	Asp	Ser	Phe	Gly	His	Tyr	Arg	Glu		
		210				215					220						
Ala	Lys	Phe	Ser	Gln	Thr	Lys	His	His	Trp	Trp	Trp	Lys	Leu	His	Phe		
225				230						235				240			
Val	Trp	Glu	Arg	Val	Lys	Val	Leu	Gln	Asp	Tyr	Ala	Gly	Leu	Ile	Leu		
			245						250					255			
Phe	Leu	Glu	Glu	Asp	His	Tyr	Leu	Ala	Pro	Asp	Phe	Tyr	His	Val	Phe		
			260					265					270				
Lys	Lys	Met	Trp	Lys	Leu	Lys	Gln	Gln	Glu	Cys	Pro	Glu	Cys	Asp	Val		
		275					280					285					
Leu	Ser	Leu	Gly	Thr	Tyr	Thr	Ala	Ser	Arg	Ser	Phe	His	Gly	Ile	Ala		
		290				295					300						
His	Lys	Val	Asp	Val	Lys	Thr	Trp	Lys	Ser	Thr	Glu	His	Asn	Met	Gly		
305				310						315				320			
Leu	Ala	Leu	Thr	Arg	Asn	Ala	Tyr	Gln	Lys	Leu	Ile	Glu	Cys	Thr	Asp		
			325						330					335			
Thr	Phe	Cys	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Thr	Leu	Gln	Tyr		
			340					345					350				
Leu	Thr	Val	Ser	Cys	Leu	Pro	Lys	Leu	Trp	Arg	Val	Leu	Val	Pro	Gln		
		355					360					365					
Val	Pro	Arg	Val	Phe	His	Ala	Gly	Asp	Cys	Gly	Met	His	His	Lys	Lys		

eolf-seq1

Thr 370	Cys Arg Pro Phe Thr 375	Gln Ser Ala Gln Ile 380	Glu Ser Leu Leu Asn
385	390	395	400
Ser Asn Arg Gln Tyr Met Phe Pro Glu Thr Leu Ile Ile Ser Glu Lys			
	405	410	415
Ser Pro Val Val Ser Ile Ala Ser Pro Arg Lys Asn Gly Gly Trp Gly			
	420	425	430
Asp Ile Arg Asp His Glu Leu Cys Lys Ser Tyr Arg Arg Leu Gln			
	435	440	445

<210> 23
 <211> 446
 <212> PRT
 <213> Ailuropoda melanoleuca

<400> 23

Met Arg Phe Arg Ile Tyr Lys Arg Lys Val Leu Ile Leu Thr Leu Val			
1	5	10	15
Val Ala Ala Cys Gly Phe Val Leu Trp Ser Ser Asn Gly Arg Gln Arg			
	20	25	30
Lys Asn Glu Ala Leu Ala Pro Pro Leu Leu Asp Ala Glu Pro Ala Arg			
	35	40	45
Gly Ala Gly Gly Arg Gly Gly Asp His Ser Ala Val Ser Ala Gly Ile			
	50	55	60
Arg Arg Val Ser Asn Asp Ser Ala Ala Pro Leu Val Pro Ala Ala Pro			
65	70	75	80
Gln Pro Glu Ala Asp Asn Leu Thr Leu Arg Tyr Arg Ser Leu Val Tyr			
	85	90	95
Gln Leu Asn Phe Asp Gln Thr Leu Arg Asn Val Asp Lys Ala Gly Ser			
	100	105	110
Trp Ala Pro Arg Glu Leu Val Leu Val Val Gln Val His Asn Arg Pro			
	115	120	125
Asp Tyr Leu Arg Leu Leu Leu Asp Ser Leu Arg Lys Ala Gln Gly Ile			
	130	135	140
Asp Asn Val Leu Val Ile Phe Ser His Asp Phe Trp Ser Thr Glu Ile			
145	150	155	160
Asn Gln Leu Ile Ala Gly Val Asp Phe Cys Pro Val Leu Gln Val Phe			
	165	170	175
Phe Pro Phe Ser Ile Gln Leu Tyr Pro Asn Glu Phe Pro Gly Ser Asp			
	180	185	190
Pro Arg Asp Cys Pro Arg Asp Leu Glu Lys Asn Ala Ala Leu Lys Met			
	195	200	205
Gly Cys Ile Asn Ala Glu Tyr Pro Asp Ser Phe Gly His Tyr Arg Glu			
	210	215	220
Ala Lys Phe Ser Gln Thr Lys His His Trp Trp Trp Lys Leu His Phe			
225	230	235	240
Val Trp Glu Arg Val Lys Val Leu Arg Asp Tyr Ala Gly Leu Ile Leu			
	245	250	255
Phe Leu Glu Glu Asp His Tyr Leu Ala Pro Asp Phe Tyr His Val Phe			
	260	265	270
Lys Lys Met Trp Lys Leu Lys Gln Glu Glu Cys Thr Glu Cys Asp Val			
	275	280	285
Leu Ser Leu Gly Thr Tyr Thr Ala Val Arg Ser Phe His Gly Ile Ala			
	290	295	300
Asp Lys Val Asp Val Lys Thr Trp Lys Ser Thr Glu His Asn Met Gly			
305	310	315	320
Leu Ala Leu Thr Arg Asp Ala Tyr Gln Lys Leu Ile Glu Cys Thr Asp			
	325	330	335
Thr Phe Cys Thr Tyr Asp Asp Tyr Asn Trp Asp Trp Thr Leu Gln Tyr			
	340	345	350
Leu Thr Val Ser Cys Leu Pro Lys Phe Trp Lys Val Leu Val Pro Gln			
	355	360	365
Val Pro Arg Ile Phe His Ala Gly Asp Cys Gly Met His His Lys Lys			
	370	375	380
Thr Cys Arg Pro Ser Thr Gln Ser Ala Gln Ile Glu Ser Leu Leu Asn			
385	390	395	400
Asn Asn Lys Gln Tyr Leu Phe Pro Glu Thr Leu Ile Ile Ser Glu Lys			

435 440 eof-seq1 445

<210> 25
 <211> 446
 <212> PRT
 <213> Sus scrofa

<400> 25
 Met Arg Phe Arg Ile Tyr Lys Arg Lys Val Leu Ile Leu Thr Phe Val
 1 5 10 15
 Val Ala Ala Cys Gly Phe Val Leu Trp Ser Ser Asn Gly Arg Gln Arg
 20 25 30
 Lys Asn Glu Ala Leu Ala Pro Pro Leu Leu Asp Ala Glu Pro Val Arg
 35 40 45
 Gly Ala Gly Ala Arg Ala Gly Asp His Pro Ala Ile Ser Val Gly Ile
 50 55 60
 Arg Arg Gly Ser Asn Asp Ser Ala Ala Pro Leu Val Ala Ala Ala Pro
 65 70 75 80
 Gln Pro Glu Val Asp Asn Leu Thr Leu Arg Tyr Arg Ser Leu Val Tyr
 85 90 95
 Gln Leu Asn Phe Asp Gln Thr Leu Arg Asn Val Asp Lys Val Ser Ser
 100 105 110
 Trp Val Pro Arg Glu Leu Val Leu Val Val Gln Val His Asn Arg Ala
 115 120 125
 Glu Tyr Leu Lys Leu Leu Leu Asp Ser Leu Arg Lys Ala Gln Gly Ile
 130 135 140
 Asp Asn Val Leu Val Ile Phe Ser His Asp Phe Trp Ser Thr Glu Ile
 145 150 155
 Asn Gln Leu Ile Ala Gly Val Asp Phe Cys Pro Val Leu Gln Val Phe
 165 170 175
 Phe Pro Phe Ser Ile Gln Leu Tyr Pro Asn Glu Phe Pro Gly Thr Asp
 180 185 190
 Pro Arg Asp Cys Pro Arg Asp Leu Glu Lys Asn Ala Ala Leu Lys Met
 195 200 205
 Gly Cys Ile Asn Ala Glu Tyr Pro Asp Ser Phe Gly His Tyr Arg Glu
 210 215 220
 Ala Lys Phe Ser Gln Thr Lys His His Trp Trp Trp Lys Leu His Phe
 225 230 235
 Val Trp Glu Arg Val Lys Val Leu Arg Asp Tyr Ala Gly Leu Ile Leu
 245 250 255
 Phe Leu Glu Glu Asp His Tyr Val Ala Pro Asp Phe Tyr His Val Phe
 260 265 270
 Lys Lys Met Trp Asn Leu Lys Gln Gln Glu Cys Pro Glu Cys Asp Val
 275 280 285
 Leu Ser Leu Gly Thr Tyr Thr Thr Val Arg Ser Phe Arg Asp Val Ala
 290 295 300
 Asp Lys Val Asp Val Lys Thr Trp Lys Ser Thr Glu His Asn Met Gly
 305 310 315
 Leu Ala Leu Thr Arg Asp Ala Tyr Gln Lys Leu Ile Glu Cys Thr Asp
 325 330 335
 Thr Phe Cys Thr Tyr Asp Asp Tyr Asn Trp Asp Trp Thr Leu Gln Tyr
 340 345 350
 Leu Thr Val Ser Cys Leu Pro Lys Phe Trp Lys Val Leu Val Pro Gln
 355 360 365
 Val Pro Arg Ile Phe His Ala Gly Asp Cys Gly Met His His Lys Lys
 370 375 380
 Thr Cys Arg Pro Ser Thr Gln Ser Ala Gln Ile Glu Ser Leu Leu Asn
 385 390 395
 Ser Asn Lys Gln Tyr Met Phe Pro Glu Thr Leu Thr Ile Ser Glu Lys
 405 410 415
 Leu Thr Ala Ala Leu Ser Pro Pro Arg Lys Asn Gly Gly Trp Gly Asp
 420 425 430
 Ile Arg Asp His Glu Leu Cys Lys Ser Tyr Arg Arg Leu Gln
 435 440 445

<210> 26

eolf-seq1

<211> 446
 <212> PRT
 <213> Bos taurus

<400> 26
 Met Arg Phe Arg Ile Tyr Lys Arg Lys Val Leu Ile Leu Met Leu Val
 1 5 10 15
 Val Ala Ala Cys Gly Phe Val Leu Trp Ser Ser Asn Gly Arg Gln Arg
 20 25 30
 Lys Asn Glu Ala Leu Ala Pro Pro Leu Leu Asp Ala Asp Pro Val Arg
 35 40 45
 Gly Ala Gly Ala Arg Ala Gly Asp His Pro Ala Val Ser Val Gly Ile
 50 55 60
 Arg Arg Gly Ser Asn Glu Ser Ala Ala Pro Leu Val Ala Ala Ala Pro
 65 70 75 80
 Gln Pro Glu Val Asp Asn Leu Thr Leu Arg Tyr Arg Ser Leu Val Tyr
 85 90 95
 Gln Leu Asn Phe Asp Gln Thr Leu Arg Asn Val Asp Lys Ala Ala Ser
 100 105 110
 Trp Thr Pro Arg Glu Leu Ala Leu Val Val Gln Val His Asn Arg Pro
 115 120 125
 Glu Tyr Leu Lys Leu Leu Leu Asp Ser Leu Arg Lys Ala Gln Gly Ile
 130 135 140
 Asp Asp Val Leu Val Ile Phe Ser His Asp Phe Trp Ser Thr Glu Ile
 145 150 155 160
 Asn Gln Leu Ile Ala Gly Val Asp Phe Cys Pro Val Leu Gln Val Phe
 165 170 175
 Phe Pro Phe Ser Ile Gln Leu Tyr Pro Asn Glu Phe Pro Gly Thr Asp
 180 185 190
 Pro Arg Asp Cys Pro Arg Asp Met Glu Lys Asn Ala Ala Leu Arg Met
 195 200 205
 Gly Cys Ile Asn Ala Glu Tyr Pro Asp Ser Phe Gly His Tyr Arg Glu
 210 215 220
 Ala Lys Phe Ser Gln Thr Lys His His Trp Trp Trp Lys Leu His Phe
 225 230 235 240
 Val Trp Glu Arg Val Lys Val Leu Arg Asp Tyr Ala Gly Leu Ile Leu
 245 250 255
 Phe Leu Glu Glu Asp His Tyr Leu Ala Pro Asp Phe Tyr His Val Phe
 260 265 270
 Lys Lys Met Trp Lys Leu Lys Gln Leu Glu Cys Pro Glu Cys Asp Val
 275 280 285
 Leu Ser Leu Gly Thr Tyr Thr Ala Ile Arg Asn Phe Tyr Asp Val Ala
 290 295 300
 Asp Lys Val Asp Val Lys Thr Trp Lys Ser Thr Glu His Asn Met Gly
 305 310 315 320
 Leu Ala Leu Thr Arg Glu Ala Tyr Gln Lys Leu Ile Glu Cys Thr Asp
 325 330 335
 Thr Phe Cys Thr Tyr Asp Asp Tyr Asn Trp Asp Trp Thr Leu Gln Tyr
 340 345 350
 Leu Thr Val Ser Cys Leu Pro Lys Phe Trp Lys Val Leu Val Pro Gln
 355 360 365
 Val Pro Arg Ile Phe His Ala Gly Asp Cys Gly Met His His Gln Lys
 370 375 380
 Thr Cys Arg Pro Ala Thr Gln Ser Ala Gln Leu Glu Ser Leu Leu Asn
 385 390 395 400
 Asn Asn Lys Gln Tyr Leu Phe Pro Glu Thr Leu Thr Ile Ser Glu Lys
 405 410 415
 Phe Met Thr Ser Leu Ser Pro Pro Arg Lys Asn Gly Gly Trp Gly Asp
 420 425 430
 Ile Arg Asp His Glu Leu Cys Lys Ser Tyr Arg Arg Leu Gln
 435 440 445

<210> 27
 <211> 442
 <212> PRT
 <213> Rattus norvegicus

eolf-seq1

<400> 27

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Met Arg Phe Arg Ile Tyr Lys Arg Lys Val Leu Ile Leu Thr Leu Val
 1      5      10      15
Val Ala Ala Cys Gly Phe Val Leu Trp Ser Ser Asn Gly Arg Gln Arg
 20      25      30
Lys Asn Asp Ala Leu Ala Pro Pro Leu Leu Asp Ser Glu Pro Leu Arg
 35      40      45
Gly Ala Gly His Phe Ala Ala Ser Val Gly Ile Arg Arg Val Ser Asn
 50      55      60
Asp Ser Ala Ala Pro Leu Val Pro Ala Val Pro Arg Pro Glu Val Asp
 65      70      75      80
Asn Leu Thr Leu Arg Tyr Arg Ser Leu Val Tyr Gln Leu Asn Phe Asp
 85      90      95
Gln Met Leu Arg Asn Val Asp Lys Asp Gly Thr Trp Ser Pro Gly Glu
100      105      110
Leu Val Leu Val Val Gln Val His Asn Arg Pro Glu Tyr Leu Arg Leu
115      120      125
Leu Ile Asp Ser Leu Arg Lys Ala Gln Gly Ile Arg Glu Val Leu Val
130      135      140
Ile Phe Ser His Asp Phe Trp Ser Ala Glu Ile Asn Ser Leu Ile Ser
145      150      155      160
Ser Val Asp Phe Cys Pro Val Leu Gln Val Phe Phe Pro Phe Ser Ile
165      170      175
Gln Leu Tyr Pro Ser Glu Phe Pro Gly Ser Asp Pro Arg Asp Cys Pro
180      185      190
Arg Asp Leu Lys Lys Asn Ala Ala Leu Lys Leu Gly Cys Ile Asn Ala
195      200      205
Glu Tyr Pro Asp Ser Phe Gly His Tyr Arg Glu Ala Lys Phe Ser Gln
210      215      220
Thr Lys His His Trp Trp Trp Lys Leu His Phe Val Trp Glu Arg Val
225      230      235      240
Lys Val Leu Gln Asp Tyr Thr Gly Leu Ile Leu Phe Leu Glu Glu Asp
245      250      255
His Tyr Leu Ala Pro Asp Phe Tyr His Val Phe Lys Lys Met Trp Lys
260      265      270
Leu Lys Gln Gln Glu Cys Pro Gly Cys Asp Val Leu Ser Leu Gly Thr
275      280      285
Tyr Thr Thr Ile Arg Ser Phe Tyr Gly Ile Ala Asp Lys Val Asp Val
290      295      300
Lys Thr Trp Lys Ser Thr Glu His Asn Met Gly Leu Ala Leu Thr Arg
305      310      315      320
Asp Ala Tyr Gln Lys Leu Ile Glu Cys Thr Asp Thr Phe Cys Thr Tyr
325      330      335
Asp Asp Tyr Asn Trp Asp Trp Thr Leu Gln Tyr Leu Thr Leu Ala Cys
340      345      350
Leu Pro Lys Val Trp Lys Val Leu Val Pro Gln Ala Pro Arg Ile Phe
355      360      365
His Ala Gly Asp Cys Gly Met His His Lys Lys Thr Cys Arg Pro Ser
370      375      380
Thr Gln Ser Ala Gln Ile Glu Ser Leu Leu Asn Asn Asn Lys Gln Tyr
385      390      395      400
Leu Phe Pro Glu Thr Leu Val Ile Gly Glu Lys Phe Pro Met Ala Ala
405      410      415
Ile Ser Pro Pro Arg Lys Asn Gly Gly Trp Gly Asp Ile Arg Asp His
420      425      430
Glu Leu Cys Lys Ser Tyr Arg Arg Leu Gln
435      440

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<210> 28

<211> 442

<212> PRT

<213> Mus musculus

<400> 28

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Met Arg Phe Arg Ile Tyr Lys Arg Lys Val Leu Ile Leu Thr Leu Val
 1      5      10      15
Val Ala Ala Cys Gly Phe Val Leu Trp Ser Ser Asn Gly Arg Gln Arg

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eolf-seql

Lys	Ser	Asp	Ala	Leu	Gly	Pro	Pro	Leu	Leu	Asp	Ala	Glu	Pro	Val	Arg
		35					40					45			
Gly	Ala	Gly	His	Leu	Ala	Val	Ser	Val	Gly	Ile	Arg	Arg	Val	Ser	Asn
	50					55					60				
Glu	Ser	Ala	Ala	Pro	Leu	Val	Pro	Ala	Val	Pro	Arg	Pro	Glu	Val	Asp
65					70					75					80
Asn	Leu	Thr	Leu	Arg	Tyr	Arg	Ser	Leu	Val	Tyr	Gln	Leu	Asn	Phe	Asp
				85					90					95	
Gln	Met	Leu	Arg	Asn	Val	Gly	Asn	Asp	Gly	Thr	Trp	Ser	Pro	Gly	Glu
			100					105					110		
Leu	Val	Leu	Val	Val	Gln	Val	His	Asn	Arg	Pro	Glu	Tyr	Leu	Arg	Leu
		115						120				125			
Leu	Ile	Asp	Ser	Leu	Arg	Lys	Ala	Gln	Gly	Ile	Gln	Glu	Val	Leu	Val
	130					135					140				
Ile	Phe	Ser	His	Asp	Phe	Trp	Ser	Ala	Glu	Ile	Asn	Ser	Leu	Ile	Ser
145					150					155					160
Arg	Val	Asp	Phe	Cys	Pro	Val	Leu	Gln	Val	Phe	Phe	Pro	Phe	Ser	Ile
				165					170					175	
Gln	Leu	Tyr	Pro	Asn	Glu	Phe	Pro	Gly	Ser	Asp	Pro	Arg	Asp	Cys	Pro
			180					185					190		
Arg	Asp	Leu	Lys	Lys	Asn	Ala	Ala	Leu	Lys	Leu	Gly	Cys	Ile	Asn	Ala
		195					200					205			
Glu	Tyr	Pro	Asp	Ser	Phe	Gly	His	Tyr	Arg	Glu	Ala	Lys	Phe	Ser	Gln
	210					215					220				
Thr	Lys	His	His	Trp	Trp	Trp	Lys	Leu	His	Phe	Val	Trp	Glu	Arg	Val
225					230					235					240
Lys	Val	Leu	Gln	Asp	Tyr	Thr	Gly	Leu	Ile	Leu	Phe	Leu	Glu	Glu	Asp
				245					250					255	
His	Tyr	Leu	Ala	Pro	Asp	Phe	Tyr	His	Val	Phe	Lys	Lys	Met	Trp	Lys
			260					265					270		
Leu	Lys	Gln	Gln	Glu	Cys	Pro	Gly	Cys	Asp	Val	Leu	Ser	Leu	Gly	Thr
		275					280					285			
Tyr	Thr	Thr	Ile	Arg	Ser	Phe	Tyr	Gly	Ile	Ala	Asp	Lys	Val	Asp	Val
	290					295					300				
Lys	Thr	Trp	Lys	Ser	Thr	Glu	His	Asn	Met	Gly	Leu	Ala	Leu	Thr	Arg
305					310					315					320
Asp	Ala	Tyr	Gln	Lys	Leu	Ile	Glu	Cys	Thr	Asp	Thr	Phe	Cys	Thr	Tyr
				325					330					335	
Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Thr	Leu	Gln	Tyr	Leu	Thr	Leu	Ala	Cys
			340					345					350		
Leu	Pro	Lys	Ile	Trp	Lys	Val	Leu	Val	Pro	Gln	Ala	Pro	Arg	Ile	Phe
		355					360					365			
His	Ala	Gly	Asp	Cys	Gly	Met	His	His	Lys	Lys	Thr	Cys	Arg	Pro	Ser
	370					375					380				
Thr	Gln	Ser	Ala	Gln	Ile	Glu	Ser	Leu	Leu	Asn	Ser	Asn	Lys	Gln	Tyr
385					390					395					400
Leu	Phe	Pro	Glu	Thr	Leu	Val	Ile	Gly	Glu	Lys	Phe	Pro	Met	Ala	Ala
				405					410					415	
Ile	Ser	Pro	Pro	Arg	Lys	Asn	Gly	Gly	Trp	Gly	Asp	Ile	Arg	Asp	His
			420					425					430		
Glu	Leu	Cys	Lys	Ser	Tyr	Arg	Arg	Leu	Gln						
		435					440								

<210> 29
 <211> 444
 <212> PRT
 <213> Monodelphis domestica

<400> 29
 Met Arg Phe Arg Ile Tyr Lys Arg Lys Val Leu Ile Leu Thr Leu Val
 1 5 10 15
 Val Ala Ala Cys Gly Phe Val Phe Trp Asn Ser Asn Gly Arg Gln Arg
 20 25 30
 Lys Asn Glu Ala Phe Ala Gly Ser Val Pro Ala Pro Val Arg Ala Val
 35 40 45
 Gly Pro Gly Asp Leu Arg Arg Phe Pro Asn Gly Ser Ala Ala Pro Pro

eolf-seql

50	Pro	Glu	Val	Asp	Asn	Met	Thr	Leu	Val	Tyr	Arg	Ser	Leu	Val	Tyr	Gln
65	Val	Asn	Phe	Asp	Gln	Thr	Leu	Lys	Asn	Ala	Leu	Ala	Ala	Ala	Ala	Val
	Gly	Ala	Gly	Gly	Ala	Gly	Gly	Gly	Gly	Gly	Gly	Pro	Ala	Gln	Leu	Glu
	Leu	Glu	Leu	Val	Leu	Val	Val	Gln	Val	His	Asn	Arg	Pro	Asp	Tyr	Leu
	Lys	Leu	Leu	Leu	Asp	Ser	Leu	Arg	Lys	Val	Gln	Gly	Ile	Gly	Asn	Leu
	Leu	Val	Ile	Phe	Ser	His	Asp	Phe	Trp	Ser	Ala	Glu	Ile	Asn	Gln	Leu
	Ile	Ala	Gly	Val	Asp	Phe	Cys	Pro	Val	Leu	Gln	Val	Phe	Phe	Pro	Phe
	Ser	Ile	Gln	Leu	Tyr	Pro	Asn	Glu	Phe	Pro	Gly	Asn	Asp	Pro	Lys	Asp
	Cys	Pro	Arg	Asp	Leu	Gln	Lys	Lys	Ala	Ala	Leu	Lys	Met	Gly	Cys	Ile
	Asn	Ala	Glu	Tyr	Pro	Asp	Ser	Phe	Gly	His	Tyr	Arg	Glu	Ala	Lys	Phe
	Ser	Gln	Thr	Lys	His	His	Trp	Trp	Trp	Lys	Leu	His	Phe	Ala	Trp	Glu
	Arg	Val	Lys	Ile	Leu	Arg	Asn	Tyr	Ala	Gly	Leu	Met	Val	Phe	Leu	Glu
	Glu	Asp	His	Tyr	Leu	Ala	Pro	Asp	Phe	Phe	His	Val	Leu	Lys	Lys	Met
	Trp	Lys	Leu	Lys	Leu	Gln	Glu	Cys	Pro	Asp	Cys	Asp	Val	Leu	Ser	Leu
	Gly	Ser	Tyr	Ala	Val	Ser	Arg	Ser	Phe	Phe	Gly	Lys	Ala	Asp	Lys	Val
	Glu	Val	Lys	Thr	Trp	Lys	Ser	Thr	Glu	His	Asn	Met	Gly	Leu	Ala	Leu
	Thr	Arg	Asp	Thr	Tyr	Gln	Lys	Leu	Ile	Glu	Cys	Thr	Asp	Thr	Phe	Cys
	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Thr	Leu	Gln	Tyr	Leu	Thr	Thr
	Thr	Cys	Leu	Lys	Asn	Phe	Trp	Lys	Val	Met	Val	Pro	Glu	Val	Pro	Arg
	Ile	Tyr	His	Ala	Gly	Asp	Cys	Gly	Met	His	His	Lys	Asp	Pro	Cys	Arg
	Pro	Ser	Thr	Gln	Ser	Ala	Gln	Ile	Glu	Leu	Leu	Leu	Asn	Lys	Asn	Lys
	Gln	Tyr	Leu	Phe	Pro	Lys	Thr	Leu	Ser	Ile	Ser	Lys	Lys	Tyr	Ser	Met
	Val	Pro	Leu	Leu	Pro	His	Gly	Lys	Asn	Gly	Gly	Trp	Gly	Asp	Ile	Arg
	Asp	His	Glu	Leu	Cys	Lys	Ser	Tyr	Arg	Arg	Leu	Gln				

<210> 30

<211> 432

<212> PRT

<213> Xenopus laevis

<400> 30

Met	Arg	Cys	Arg	Ile	Tyr	Lys	Arg	Lys	Val	Ile	Ile	Leu	Thr	Leu	Val
1	Val	Val	Ala	Cys	Gly	Leu	Ala	Leu	Trp	Ser	Ser	Gly	Arg	Gln	Lys
	Asn	Gly	Phe	Val	Pro	Glu	Val	Glu	Ser	Asp	Arg	Phe	Gln	Asn	Lys
	His	Ile	Ser	Pro	Ala	Ala	Arg	Lys	Val	Ser	Asn	Glu	Ser	Leu	Ala
	Lys	Glu	Gln	Lys	Thr	Arg	Val	Asp	Asn	Met	Thr	Leu	Val	Tyr	Arg
65	Val	Val	Phe	Gln	Trp	Asn	Phe	Asp	Gln	Ala	Ile	Arg	Asn	Val	Asp

eolf-seq1

Ile	Asn	Arg	Pro	85	Gln	Asp	Asp	Val	Val	Val	Val	Gln	Val	95	His	Asn
Arg	Pro	Glu	100	Phe	Leu	Arg	Arg	Leu	105	Leu	Asp	Ser	Leu	110	Gly	Lys
Gly	Ile	115	Glu	Asn	Val	Leu	Leu	120	Phe	Ser	His	Asp	125	Tyr	Trp	Ser
130	Ile	Asn	Gln	Ile	Ile	Ala	Ser	Val	Asp	Phe	Cys	Gln	Val	Leu	Gln	160
145	Phe	Phe	Pro	165	Phe	Ser	Ile	Gln	Leu	Tyr	Pro	Asn	Glu	Phe	Pro	Gly
Ile	Asp	Pro	Lys	180	Asp	Cys	Pro	Arg	185	Ile	Lys	Lys	Lys	Asp	Ala	Val
Glu	Leu	Gly	Cys	Ile	Asn	Ala	Glu	Tyr	Pro	Asp	Ser	Phe	Gly	His	Tyr	
Arg	Glu	Ala	Lys	Phe	Ser	Gln	Thr	Lys	His	His	Trp	Trp	Trp	Lys	Leu	
Gln	Phe	Val	Trp	Asp	Lys	Leu	Lys	Val	Leu	Lys	Glu	His	Asn	Gly	Leu	
225	Val	Leu	Phe	Ile	Glu	Glu	Asp	His	Tyr	Leu	Ser	Pro	Asp	Phe	Tyr	Tyr
Val	Leu	Lys	Lys	Met	Trp	Ser	Lys	Lys	Asn	Glu	Glu	Cys	Pro	Asp	Cys	
Thr	Leu	Lys	Lys	Met	Trp	Ser	Lys	Lys	Asn	Glu	Glu	Cys	Pro	Asp	Cys	
Asp	Met	Leu	Cys	Leu	Gly	Thr	Tyr	Ala	His	Thr	Pro	Phe	Ala	Asp	Lys	
Ala	Gly	Lys	Val	Glu	Val	Lys	Thr	Trp	Lys	Ser	Thr	Glu	His	Asn	Met	
Gly	Met	Ala	Met	Asn	Arg	Glu	Thr	Tyr	Lys	Lys	Leu	Val	Ala	Cys	Ser	
305	Glu	Thr	Phe	Cys	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Thr	Leu	Gln
Glu	Thr	Phe	Cys	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Thr	Leu	Gln	
Tyr	Leu	Thr	Val	Asn	Cys	Leu	Pro	Lys	Phe	Trp	Lys	Val	Met	Val	Pro	
Glu	Val	Pro	Arg	Ile	Tyr	His	Ile	Gly	Asp	Cys	Gly	Met	His	His	Asn	
Lys	Pro	Cys	Arg	Pro	Thr	Thr	Thr	Glu	Ser	Ala	Lys	Leu	Glu	Ala	Leu	Phe
Thr	Ser	Asn	Gln	Arg	Asp	Leu	Phe	Pro	Glu	Lys	Ile	Asp	Ile	Ser	Arg	
385	Arg	Tyr	Thr	Met	Ala	Ala	Leu	Ser	Pro	His	Val	Lys	Asn	Gly	Gly	Trp
Arg	Tyr	Thr	Met	Ala	Ala	Leu	Ser	Pro	His	Val	Lys	Asn	Gly	Gly	Trp	
Gly	Asp	Ile	Arg	420	Asp	His	Glu	Leu	Cys	Lys	Ser	Tyr	His	Arg	Leu	Gln
									425					430		

<210> 31

<211> 450

<212> PRT

<213> Danio rerio

<400> 31

Met	Arg	Phe	Arg	Ile	Tyr	Lys	Arg	Lys	Val	Val	Ile	Leu	Thr	Leu	Val	
1	Val	Ile	Ile	Cys	Gly	Phe	Ala	Val	Trp	Asn	Ser	Gly	Lys	Pro	Lys	Lys
Val	Ile	Ile	Cys	Gly	Phe	Ala	Val	Trp	Asn	Ser	Gly	Lys	Pro	Lys	Lys	
Ala	Ser	Thr	Val	Phe	Pro	Lys	Glu	Val	Glu	Thr	Val	Lys	Arg	Ser	Ser	
Val	Gly	Ser	Gln	Ile	Gln	Ala	Thr	Ile	Pro	Val	Thr	Arg	Lys	Pro	Ile	
Asn	Glu	Ser	Ile	Pro	Glu	Lys	Gln	Gln	Gln	Gln	Gln	Pro	Val	Ala	Lys	
65	Ser	Glu	Ala	Asp	Asn	Thr	Thr	Leu	Val	Tyr	Arg	Gly	Ile	Val	Phe	Gln
Ser	Glu	Ala	Asp	Asn	Thr	Thr	Leu	Val	Tyr	Arg	Gly	Ile	Val	Phe	Gln	
Leu	Asn	Phe	Asp	Gln	Asn	Leu	Lys	Asn	Glu	Glu	Lys	Phe	Arg	Ala	Val	
Arg	Gln	Lys	Asp	Asp	Leu	Val	Ile	Val	Val	Gln	Val	His	Asn	Arg	Pro	
Glu	Tyr	Leu	Arg	Leu	Leu	Val	Asp	Ser	Leu	Arg	Lys	Ser	Lys	Gly	Ile	

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130	Glu	Asn	Ile	Leu	Leu	Ile	135	Phe	Ser	His	Asp	Phe	140	Trp	Ser	Pro	Glu	Ile	
145	Asn	Gln	Ile	Val	Ala	150	Ser	Val	Asp	Phe	Cys	155	Leu	Val	Leu	Gln	Ile	160	Phe
				165	Ile	Gln	Leu	Tyr	Pro	Gln	Glu	170	Phe	Pro	Gly	Asn	Asp		
	Phe	Pro	Phe	180	Cys	Pro	Arg	Asp	Ile	Pro	Lys	Lys	Glu	Ala	Leu	Thr	Leu		
	Pro	Arg	Asp	195	Ile	Asn	Ala	Glu	Tyr	Pro	Asp	Ser	Phe	Gly	His	Tyr	Arg	Glu	
	Gly	Cys	210	Phe	Ser	Gln	Thr	Lys	His	His	Trp	Trp	Trp	Lys	Leu	His	Phe		
	Ala	Lys	225	Val	Trp	Asp	Arg	Val	Arg	Val	Leu	Lys	Asp	His	Lys	Gly	Leu	Val	Leu
	Val	Trp	245	Leu	Ile	Glu	Glu	Asp	His	Tyr	Leu	Ala	Pro	Asp	Phe	Tyr	His	Leu	Leu
	Lys	Leu	260	Met	Ala	Ser	Leu	Lys	Lys	Glu	Gln	Cys	Pro	Asp	Cys	Asp	Ile		
	Leu	Ser	275	Leu	Gly	Ser	Tyr	Gly	His	Ile	Gly	Tyr	Ser	Ser	Lys	Ala	Asn		
	Lys	Val	290	Glu	Val	Lys	Ala	Trp	Lys	Ser	Thr	Glu	His	Asn	Met	Gly	Met		
	Ala	Leu	305	Asn	Arg	Asp	Ala	Tyr	Gln	Lys	Leu	Leu	Arg	Cys	Thr	Asp	Ala		
	Phe	Cys	320	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Ser	Leu	Gln	His	Leu		
	Thr	Val	335	Thr	Cys	Leu	Pro	Ala	Phe	Leu	Lys	Val	Met	Val	Ser	Glu	Ala		
	Pro	Arg	350	Ile	Phe	His	Ala	Gly	Asp	Cys	Gly	Met	His	His	Lys	Lys	Ser		
	Ala	Cys	365	Met	Pro	Ser	Gly	Gln	Lys	Thr	Lys	Ile	Glu	Asn	Val	Leu	Gln		
	Asn	Ser	380	Gly	Asn	Gln	Leu	Phe	Pro	Lys	Gln	Leu	Leu	Ile	Thr	Lys	Arg		
	Leu	Pro	395	Ala	Ser	Gly	Ala	Lys	Gly	Val	Ala	Pro	His	Val	Lys	Asn	Gly		
	Gly	Trp	410	Gly	Asp	Ile	Arg	Asp	His	Glu	Leu	Cys	Lys	Ser	Tyr	Leu	Arg		
	Leu	Gln	425						440					445					
			435																
			450																

<210> 32
 <211> 465
 <212> PRT
 <213> Salmo salar

<400> 32

Met	Arg	Phe	Arg	Val	Tyr	Lys	Arg	Lys	Val	Val	Ile	Leu	Thr	Leu	Val
1				5					10					15	
Val	Val	Val	Cys	Gly	Leu	Ala	Phe	Trp	Thr	Ser	Gly	Lys	Gln	Lys	Lys
			20					25					30		
Ser	Ser	Gly	Val	Val	Val	Leu	Lys	Glu	Ala	Glu	Gly	Ala	Arg	Arg	Ser
		35					40					45			
Ser	Ser	Ser	Gln	Val	Gln	Pro	Gln	Pro	Gln	Ala	Thr	Pro	Glu	Val	Ser
		50				55					60				
Arg	Ile	Pro	Asn	Val	Pro	Pro	Ile	Ala	Pro	Val	Asn	Glu	Thr	His	Pro
65					70				75					80	
Lys	Asn	Gln	Pro	Glu	Lys	His	Leu	Glu	Lys	Glu	Glu	Val	Val	Lys	Pro
			85					90						95	
Glu	Val	Asp	Asn	Thr	Thr	Gln	Val	Tyr	Arg	Gly	Ile	Val	Phe	Gln	Leu
			100					105					110		
Asn	Phe	Asp	Gln	Thr	Val	Arg	His	Glu	Glu	Lys	Phe	Arg	Ala	Ala	Arg
		115					120					125			
Lys	Lys	Asp	Asp	Leu	Val	Val	Val	Val	Gln	Val	His	Asn	Arg	Pro	Asp
		130				135					140				
Tyr	Leu	Arg	Leu	Leu	Val	Glu	Ser	Leu	Arg	Lys	Ala	Arg	Gly	Val	Glu

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145	Ser	Ile	Leu	Leu	Ile	Phe	Ser	His	Asp	Phe	Trp	Ser	Pro	Glu	Ile	Asn
	Gln	Val	Val	Ala	Ser	Val	Asp	Phe	Cys	Gln	Val	Leu	Gln	Ile	Phe	Phe
	Pro	Phe	Ser	Ile	Gln	Leu	Tyr	Pro	Gln	Glu	Phe	Pro	Gly	His	Asp	Pro
	Arg	Asp	Cys	Pro	Arg	Asp	Ile	Ser	Lys	Ile	Asp	Ala	Leu	Lys	Leu	Gly
	Cys	Ile	Asn	Ala	Glu	Tyr	Pro	Asp	Ser	Phe	Gly	His	Tyr	Arg	Glu	Ala
	Lys	Phe	Ser	Gln	Thr	Lys	His	His	Trp	Trp	Trp	Lys	Leu	His	Phe	Val
	Trp	Asp	Arg	Val	Arg	Ala	Leu	Lys	Asp	His	Arg	Gly	Leu	Val	Leu	Leu
	Ile	Glu	Glu	Asp	His	Phe	Leu	Ser	Pro	Asp	Phe	Leu	His	Phe	Leu	Lys
	Leu	Met	Ser	Ile	Leu	Lys	Arg	Glu	Asn	Cys	Pro	Asp	Cys	Asp	Ile	Leu
	Ser	Leu	Gly	Ser	Tyr	Gly	His	Ile	Ser	Tyr	Pro	Ser	Lys	Ala	Asn	Lys
	Val	Glu	Val	Lys	Ala	Trp	Lys	Ser	Thr	Glu	His	Asn	Met	Gly	Met	Ala
	Leu	Ser	Arg	Glu	Thr	Tyr	Gln	Lys	Leu	Ile	Gln	Cys	Thr	Asp	Ala	Phe
	Cys	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Ser	Leu	Gln	His	Leu	Thr
	Val	Thr	Cys	Leu	Pro	Ser	Tyr	Trp	Lys	Val	Met	Val	Ser	Glu	Ala	Pro
	Arg	Val	Phe	His	Ala	Gly	Asp	Cys	Gly	Met	His	His	Lys	Lys	Ser	Val
	Cys	Met	Pro	Ser	Ser	Gln	Lys	Ser	Lys	Ile	Asp	Thr	Ile	Leu	Gln	Ser
	Ser	Ser	Asn	Gln	Leu	Phe	Pro	Lys	Asn	Leu	Leu	Ile	Thr	Lys	Arg	Leu
	Pro	Ala	Asn	Gly	Ala	Gly	Gly	Val	Ala	Pro	His	Val	Lys	Asn	Gly	Gly
	Trp	Gly	Asp	Ile	Arg	Asp	His	Glu	Leu	Cys	Lys	Ser	Tyr	Pro	Arg	Leu
	Gln															

<210> 33
 <211> 471
 <212> PRT
 <213> Drosophila melanogaster

<400> 33
 Met Gly Arg Lys Arg Asn Asn Phe Tyr Met Arg Ser Leu Phe Leu Leu
 1 5 10 15
 Ala Leu Gly Ile Phe Gly Leu Leu Gln Tyr Asn Asn Phe Asn Tyr Leu
 20 25 30
 Asp Ser Arg Asp Asn Val Leu Gly Asp Ala Val Thr Asn Asp Ser Asp
 35 40 45
 Asp Ala Ile Leu Ala Met Val Pro Ala Thr Leu His Lys Tyr Leu Thr
 50 55 60
 Pro His Ser Arg Asn His Ser Ala Ser Gly Ala Gly Ala Leu Asn Gly
 65 70 75 80
 Ala Ala Leu Leu Leu Asn Ala Ser Ser Pro Gly Ala Ala Thr Ala Ser
 85 90 95
 Thr Ile Ser Phe Asp Val Tyr His Pro Pro Asn Ile Thr Glu Ile Lys
 100 105 110
 Arg Gln Ile Val Arg Tyr Asn Asp Met Gln Met Val Leu Asn Glu Asp
 115 120 125
 Val Phe Gly Pro Leu Gln Asn Asp Ser Val Ile Ile Val Val Gln Val
 130 135 140
 His Thr Arg Ile Thr Tyr Leu Arg His Leu Ile Val Ser Leu Ala Gln

eolf-seql

145	Ala	Arg	Asp	Ile	Ser	Lys	Val	Leu	Leu	Val	Phe	Ser	His	Asp	Tyr	Tyr	160
					165					170							
Asp	Asp	Asp	Ile	Asn	Asp	Leu	Val	Gln	Gln	Ile	Asp	Phe	Cys	Lys	Val		
			180					185					190				
Met	Gln	Ile	Phe	Tyr	Pro	Tyr	Ser	Ile	Gln	Thr	His	Pro	Asn	Glu	Tyr		
		195					200					205					
Pro	Gly	Val	Asp	Pro	Asn	Asp	Cys	Pro	Arg	Asn	Ile	Lys	Lys	Glu	Gln		
	210				215					220							
Ala	Leu	Ile	Thr	Asn	Cys	Asn	Asn	Ala	Met	Tyr	Pro	Asp	Leu	Tyr	Gly		
225				230					235						240		
His	Tyr	Arg	Glu	Ala	Lys	Phe	Thr	Gln	Thr	Lys	His	His	Trp	Ile	Trp		
			245					250						255			
Lys	Ala	Asn	Arg	Val	Phe	Asn	Glu	Leu	Glu	Val	Thr	Arg	Tyr	His	Thr		
		260					265						270				
Gly	Leu	Val	Leu	Phe	Leu	Glu	Glu	Asp	His	Tyr	Val	Ala	Glu	Asp	Phe		
	275					280						285					
Leu	Tyr	Leu	Leu	Ala	Met	Met	Gln	Gln	Arg	Thr	Lys	Asp	Leu	Cys	Pro		
	290				295						300						
Gln	Cys	Asn	Val	Leu	Ser	Leu	Gly	Thr	Tyr	Leu	Lys	Thr	Phe	Asn	Tyr		
305				310					315						320		
Tyr	Thr	Tyr	His	Ser	Lys	Val	Glu	Val	Met	Pro	Trp	Val	Ser	Ser	Lys		
			325					330					335				
His	Asn	Met	Gly	Phe	Ala	Phe	Asn	Arg	Thr	Thr	Trp	Ser	Asn	Ile	Arg		
		340					345						350				
Lys	Cys	Ala	Arg	His	Phe	Cys	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp		
	355					360						365					
Ser	Leu	Gln	His	Val	Ser	Gln	Gln	Cys	Leu	Arg	Arg	Lys	Leu	His	Ala		
	370				375					380							
Met	Ile	Val	Lys	Gly	Pro	Arg	Val	Phe	His	Ile	Gly	Glu	Cys	Gly	Val		
385				390					395						400		
His	His	Lys	Asn	Lys	Asn	Cys	Glu	Ser	Asn	Gln	Val	Ile	Ser	Lys	Val		
			405					410						415			
Gln	His	Val	Leu	Arg	Ile	Ala	Arg	Asn	Ser	His	Gln	Leu	Phe	Pro	Arg		
		420					425						430				
Ser	Leu	Thr	Leu	Thr	Val	Pro	Ser	Leu	Met	Lys	Lys	Ser	Lys	Leu	Arg		
	435					440						445					
Lys	Gly	Asn	Gly	Gly	Trp	Gly	Asp	Met	Arg	Asp	His	Glu	Leu	Cys	Leu		
	450			455							460						
Asn	Met	Thr	Leu	Ala	Thr	Arg											
465					470												

<210> 34
 <211> 54
 <212> PRT
 <213> Homo sapiens

<400> 34
 Thr Arg Pro Ala Pro Gly Arg Pro Pro Ser Val Ser Ala Leu Asp Gly
 1 5 10 15
 Asp Pro Ala Ser Leu Thr Arg Glu Val Ile Arg Leu Ala Gln Asp Ala
 20 25 30
 Glu Val Glu Leu Glu Arg Gln Arg Gly Leu Leu Gln Gln Ile Gly Asp
 35 40 45
 Ala Leu Ser Ser Gln Arg
 50

<210> 35
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthesized Construct

<400> 35

eof~seq1
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 1 5 10 15

<210> 36
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthesized Construct

<400> 36
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 1 5 10

<210> 37
 <211> 21
 <212> PRT
 <213> Trichoderma reesei

<400> 37
 Ser Ser Ala Ala Thr Ala Thr Ala Ser Ala Thr Val Pro Gly Gly Gly
 1 5 10 15
 Ser Gly Pro Thr Ser
 20

<210> 38
 <211> 19
 <212> PRT
 <213> Trichoderma reesei

<400> 38
 Ser Thr Gly Asn Pro Ser Gly Gly Asn Pro Pro Gly Gly Asn Pro Pro
 1 5 10 15
 Gly Ser Thr

<210> 39
 <211> 10
 <212> PRT
 <213> Trichoderma reesei

<400> 39
 Met Ala Ser Thr Asn Ala Arg Tyr Val Arg
 1 5 10

<210> 40
 <211> 17
 <212> PRT
 <213> Trichoderma reesei

<400> 40
 Tyr Leu Leu Ile Ala Phe Phe Thr Ile Leu Val Phe Tyr Phe Val Ser
 1 5 10 15
 Asn

<210> 41
 <211> 379
 <212> PRT
 <213> Trichoderma reesei

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<400> 41

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Ser Lys Tyr Glu Gly Val Asp Leu Asn Lys Gly Thr Phe Thr Ala Pro
 1      5      10      15
Asp Ser Thr Lys Thr Thr Pro Lys Pro Pro Ala Thr Gly Asp Ala Lys
 20      25      30
Asp Phe Pro Leu Ala Leu Thr Pro Asn Asp Pro Gly Phe Asn Asp Leu
 35      40      45
Val Gly Ile Ala Pro Gly Pro Arg Met Asn Ala Thr Phe Val Thr Leu
 50      55      60
Ala Arg Asn Ser Asp Val Trp Asp Ile Ala Arg Ser Ile Arg Gln Val
 65      70      75
Glu Asp Arg Phe Asn Arg Arg Tyr Asn Tyr Asp Trp Val Phe Leu Asn
 85      90      95
Asp Lys Pro Phe Asp Asn Thr Phe Lys Lys Val Thr Thr Ser Leu Val
100      105      110
Ser Gly Lys Thr His Tyr Gly Glu Ile Ala Pro Glu His Trp Ser Phe
115      120      125
Pro Asp Trp Ile Asp Gln Asp Lys Ala Lys Lys Val Arg Glu Asp Met
130      135      140
Ala Glu Arg Lys Ile Ile Tyr Gly Asp Ser Val Ser Tyr Arg His Met
145      150      155
Cys Arg Phe Glu Ser Gly Phe Phe Phe Arg Gln Pro Leu Met Met Asn
165      170      175
Tyr Glu Tyr Tyr Trp Arg Val Glu Pro Ser Ile Glu Leu Tyr Cys Asp
180      185      190
Ile His Tyr Asp Pro Phe Arg Leu Met Val Glu Gln Gly Lys Lys Tyr
195      200      205
Ser Phe Val Ile Ser Leu Tyr Glu Tyr Pro Ala Thr Ile Ala Thr Leu
210      215      220
Trp Glu Ser Thr Lys Lys Phe Met Lys Asn His Pro Glu His Ile Ala
225      230      235
Pro Asp Asn Ser Met Arg Phe Leu Ser Asp Asp Gly Gly Glu Thr Tyr
245      250      255
Asn Asn Cys His Phe Trp Ser Asn Phe Glu Ile Gly Ser Leu Glu Trp
260      265      270
Leu Arg Ser Lys Gln Tyr Ile Asp Phe Phe Glu Ser Leu Asp Lys Asp
275      280      285
Gly Gly Phe Phe Tyr Glu Arg Trp Gly Asp Ala Pro Val His Ser Ile
290      295      300
Ala Ala Gly Leu Met Leu Asn Arg Ser Glu Ile His Phe Phe Asn Asp
305      310      315
Ile Ala Tyr Trp His Val Pro Phe Thr His Cys Pro Thr Gly Glu Lys
325      330      335
Thr Arg Leu Asp Leu Lys Cys His Cys Asp Pro Lys Glu Asn Phe Asp
340      345      350
Trp Lys Gly Tyr Ser Cys Thr Ser Arg Phe Phe Glu Met Asn Gly Met
355      360      365
Asp Lys Pro Glu Gly Trp Glu Asn Gln Gln Asp
370      375

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<210> 42

<211> 8

<212> PRT

<213> Trichoderma reesei

<400> 42

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Met Ala Ile Ala Arg Pro Val Arg
 1      5

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<210> 43

<211> 15

<212> PRT

<213> Trichoderma reesei

<400> 43

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Ala Leu Gly Gly Leu Ala Ala Ile Leu Trp Cys Phe Phe Leu Tyr

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eo1f-seq1
10

1 5 15

<210> 44
<211> 371
<212> PRT
<213> Trichoderma reesei

<400> 44
Gln Leu Leu Arg Pro Ser Ser Ser Tyr Asn Ser Pro Gly Asp Arg Tyr
1 5 10 15
Ile Asn Phe Glu Arg Asp Pro Asn Leu Asp Pro Thr Gly Glu Pro Glu
20 25 30
Gly Ile Leu Val Arg Thr Ser Asp Arg Tyr Ala Pro Asp Ala Lys Asp
35 40 45
Thr Asp Arg Ala Ser Ala Thr Leu Leu Ala Leu Val Arg Asn Glu Glu
50 55 60
Val Asp Asp Met Val Ala Ser Met Val Asp Leu Glu Arg Thr Trp Asn
65 70 75 80
Ser Lys Phe Asn Tyr Pro Trp Thr Phe Phe Asn Asp Lys Pro Phe Ser
85 90 95
Glu Glu Phe Lys Lys Lys Thr Ser Ala Val Thr Asn Ala Thr Cys Asn
100 105 110
Tyr Glu Leu Ile Pro Lys Glu His Trp Asp Ala Pro Ser Trp Ile Asp
115 120 125
Pro Ala Ile Phe Glu Glu Ser Ala Ala Val Leu Lys Lys Asn Gly Val
130 135 140
Gln Tyr Ala Asn Met Met Ser Tyr His Gln Met Cys Arg Trp Asn Ser
145 150 155 160
Gly Met Phe Tyr Lys His Pro Ala Leu Lys Asp Val Arg Tyr Tyr Trp
165 170 175
Arg Val Glu Pro Lys Val His Phe Phe Cys Asp Val Asp Tyr Asp Val
180 185 190
Phe Arg Tyr Met Gln Asp Asn Asn Lys Thr Tyr Gly Phe Thr Ile Asn
195 200 205
Leu Tyr Asp Asp Pro His Thr Leu Pro Thr Leu Trp Pro Gln Thr Ala
210 215 220
Lys Phe Leu Ala Asp His Pro Asn Tyr Leu His Glu His Ser Ala Ile
225 230 235 240
Lys Trp Val Ile Asp Asp Ala Arg Arg Pro Gln His Asn Arg Glu Ala
245 250 255 260
Gln Gly Phe Ser Thr Cys His Phe Trp Ser Asn Phe Glu Val Ala Asp
265 270
Met Glu Phe Trp Arg Ser Lys Val Tyr Glu Asp Tyr Phe Glu His Leu
275 280 285
Asp Arg Ala Gly Gly Phe Phe Tyr Glu Arg Trp Gly Asp Ala Pro Val
290 295 300
His Ser Ile Ala Leu Gly Leu Phe Glu Asp Ser Ser Lys Ile His Trp
305 310 315 320
Phe Arg Asp Ile Gly Tyr Gln His Ile Pro Phe Phe Asn Cys Pro Asn
325 330 335
Ser Pro Lys Cys Lys Gly Cys Val Thr Gly Arg Leu Thr Asp Gly Glu
340 345 350
Pro Phe Leu His Arg Glu Asp Cys Arg Pro Asn Trp Phe Lys Tyr Ala
355 360 365
Gly Met Gly
370

<210> 45
<211> 6
<212> PRT
<213> Trichoderma reesei

<400> 45
Met Leu Asn Pro Arg Arg
1 5

eo1f-seq1

<210> 46
 <211> 15
 <212> PRT
 <213> Trichoderma reesei

<400> 46
 Ala Leu Ile Ala Ala Ala Phe Ile Leu Thr Val Phe Phe Leu Ile
 1 5 10 15

<210> 47
 <211> 352
 <212> PRT
 <213> Trichoderma reesei

<400> 47
 Ser Arg Ser His Asn Ser Glu Ser Ala Ser Thr Ser Glu Pro Lys Asp
 1 5 10 15
 Ala Glu Ala Glu Ala Leu Ser Ala Ala Asn Ala Gln Gln Arg Ala Ala
 20 25 30
 Pro Pro Pro Pro Gln Lys Pro Met Ile Asp Met Ser Gly Met Ser
 35 40 45
 Thr Tyr Asp Lys Leu Ala Tyr Ala Tyr Glu Tyr Asp Ile Glu Ser Lys
 50 55 60
 Phe Pro Ala Tyr Ile Trp Gln Thr Trp Arg Lys Thr Pro Ser Glu Gly
 65 70 75 80
 Asp Phe Glu Phe Arg Glu Gln Glu Ala Ser Trp Ser Ile Glu His Pro
 85 90 95
 Gly Phe Ile His Glu Val Ile Thr Asp Ser Val Ala Asp Thr Leu Leu
 100 105 110
 Gln Leu Leu Tyr Gly Ser Ile Pro Glu Val Leu Glu Ala Tyr His Ala
 115 120 125
 Leu Pro Leu Pro Val Leu Lys Ala Asp Leu Phe Arg Tyr Leu Ile Leu
 130 135 140
 Tyr Ala Arg Gly Gly Ile Tyr Ser Asp Ile Asp Thr Tyr Ala Ile Arg
 145 150 155 160
 Ser Ala Leu Glu Trp Ile Pro Pro Gln Ile Pro Lys Glu Thr Val Gly
 165 170 175
 Leu Val Ile Gly Ile Glu Ala Asp Pro Asp Arg Pro Asp Trp Ala Asp
 180 185 190
 Trp Tyr Ser Arg Arg Ile Gln Phe Cys Gln Trp Thr Ile Gln Ser Lys
 195 200 205
 Pro Gly His Pro Val Leu Arg Asp Ile Ile Ser Arg Ile Thr Asn Gln
 210 215 220
 Thr Leu Glu Met Lys Lys Ser Gly Lys Leu Ser Ala Phe Gln Gly Asn
 225 230 235 240
 Arg Val Val Asp Leu Thr Gly Pro Ala Val Trp Thr Asp Thr Ile Met
 245 250 255
 Asp Tyr Phe Asn Asp Glu Arg Tyr Phe Asp Met Glu Asn Ser Lys Gly
 260 265 270
 Arg Ile Asp Tyr Arg Asn Phe Thr Gly Met Glu Thr Ser Lys Arg Val
 275 280 285
 Gly Asp Val Val Val Leu Pro Ile Thr Ser Phe Ser Pro Gly Val Gly
 290 295 300
 Gln Met Gly Ala Lys Asp Tyr Asp Asp Pro Met Ala Phe Val Lys His
 305 310 315 320
 Asp Phe Glu Gly Thr Trp Lys Pro Glu Ser Glu Arg His Ile Gly Glu
 325 330 335
 Ile Val Gln Glu Leu Gly Glu Gly Gln Gly Glu Ala Pro Lys Glu Gln
 340 345 350

<210> 48
 <211> 22
 <212> PRT
 <213> Trichoderma reesei

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<400> 48

Met Gly Met Gly Gln Cys Gln Trp Ser Pro Phe Arg Asn Lys Val Pro
 1 5 10 15
 Thr Gln Met Arg Arg Cys
 20

<210> 49

<211> 15

<212> PRT

<213> Trichoderma reesei

<400> 49

Leu Pro Leu Tyr Ile Thr Val Val Cys Val Phe Leu Val Ile Val
 1 5 10 15

<210> 50

<211> 362

<212> PRT

<213> Trichoderma reesei

<400> 50

Asn Phe Asp Trp Ile Leu Ala Ile Pro Asn Pro Ala Ser Val Leu Arg
 1 5 10 15
 Arg Glu Pro Lys Ala Pro Pro Leu Pro Gly Ser Thr Phe Pro Gln Lys
 20 25 30
 Ile Trp Gln Thr Trp Lys Val Asp Pro Leu Asn Phe Asp Glu Arg Asp
 35 40 45
 Leu Val Thr Ala Arg Thr Trp Thr Thr Ile Asn Pro Gly Met Arg Tyr
 50 55 60
 Glu Val Val Thr Asp Ala Asn Glu Met Ala Tyr Ile Glu Asp Arg Tyr
 65 70 75 80
 Gly Pro Asn Gly Phe Asp Arg Pro Asp Ile Val Glu Phe Tyr Lys Met
 85 90 95
 Ile Asn Leu Pro Ile Ile Lys Ala Asp Leu Leu Arg Tyr Met Ile Met
 100 105 110
 Tyr Ala Glu Gly Gly Ile Tyr Ala Asp Ile Asp Val Glu Thr Met Lys
 115 120 125
 Pro Phe His Arg Phe Ile Pro Asp Arg Tyr Asp Glu Lys Asp Ile Asp
 130 135 140
 Ile Ile Ile Gly Val Glu Ile Asp Gln Pro Asp Phe Lys Asp His Pro
 145 150 155 160
 Ile Leu Gly Lys Lys Ser Met Ser Phe Cys Gln Trp Thr Phe Val Ala
 165 170 175
 Arg Pro Gln Gln Pro Val Met Met Arg Leu Ile Glu Asn Ile Met Lys
 180 185 190
 Trp Phe Lys Thr Val Ala Arg Asp Gln Gly Val Pro Leu Gly Glu Val
 195 200 205
 Gln Leu Asp Phe Asp Gln Val Ile Ser Gly Thr Gly Pro Ser Ala Phe
 210 215 220
 Thr Lys Ala Met Leu Glu Met Asn Arg Lys Thr Lys Gly Pro Lys
 225 230 235 240
 Val Thr Trp Asp Ala Phe His Asn Leu Asp Glu Ser Lys Leu Val Gly
 245 250 255
 Gly Val Leu Val Leu Thr Val Glu Ala Phe Cys Ala Gly Gln Gly His
 260 265 270
 Ser Asp Ser Gly Asn His Asn Ala Arg Asn Ala Leu Val Lys His His
 275 280 285
 Phe His Ala Ser Asn Trp Pro Ser Arg His Pro Arg Tyr Lys His Pro
 290 295 300
 Ala Tyr Gly Gln Val Glu Asp Cys Asn Trp Val Pro Glu Cys Val Arg
 305 310 315 320
 Lys Trp Asp Glu Asp Thr Ser Asn Trp Asp Lys Tyr Ser Glu Asn Glu
 325 330 335
 Gln Lys Lys Ile Leu Gln Asp Ile Glu Asn Ala Arg Leu Glu Arg Glu
 340 345 350
 Arg Gln Gln Gln Ala Leu Ala Ala Leu Pro

355

360

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<210> 51
 <211> 17
 <212> PRT
 <213> Trichoderma reesei

<400> 51
 Met Ala Arg Pro Met Gly Ser Val Arg Leu Lys Lys Ala Asn Pro Ser
 1 5 10 15
 Thr

<210> 52
 <211> 16
 <212> PRT
 <213> Trichoderma reesei

<400> 52
 Leu Ile Leu Gly Ala Val Leu Cys Ile Phe Ile Ile Ile Phe Leu Val
 1 5 10 15

<210> 53
 <211> 339
 <212> PRT
 <213> Trichoderma reesei

<400> 53
 Ser Pro Ser Ser Pro Ala Ser Ala Ser Arg Leu Ser Ile Val Ser Ala
 1 5 10 15
 Gln His His Leu Ser Pro Pro Thr Ser Pro Tyr Gln Ser Pro Arg Ser
 20 25 30
 Gly Ala Val Gln Gly Pro Pro Val Thr Arg Tyr Asn Leu Asn Lys
 35 40 45
 Val Thr Val Thr Ser Asp Pro Val Arg Asn Gln Glu His Ile Leu Ile
 50 55 60
 Leu Thr Pro Met Ala Arg Phe Tyr Gln Glu Tyr Trp Asp Asn Leu Leu
 65 70 75 80
 Arg Leu Asn Tyr Pro His Glu Leu Ile Thr Leu Gly Phe Ile Leu Pro
 85 90 95
 Lys Thr Lys Glu Gly Asn Gln Ala Thr Ser Met Leu Gln Lys Gln Ile
 100 105 110
 Gln Lys Thr Gln Asn Tyr Gly Pro Glu Lys Asp Arg Phe Lys Ser Ile
 115 120 125
 Ile Ile Leu Arg Gln Asp Phe Asp Pro Ala Val Val Ser Gln Asp Glu
 130 135 140
 Ser Glu Arg His Lys Leu Ala Asn Gln Lys Ala Arg Arg Glu Val Met
 145 150 155 160
 Ala Lys Ala Arg Asn Ser Leu Leu Phe Thr Thr Leu Gly Pro Ser Thr
 165 170 175
 Ser Trp Val Leu Trp Leu Asp Ala Asp Ile Thr Glu Thr Ala Pro Thr
 180 185 190
 Leu Ile Gln Asp Leu Ala Ser His Asp Lys Pro Ile Ile Val Ala Asn
 195 200 205
 Cys Phe Gln Lys Tyr Tyr Asp Pro Glu Ser Lys Lys Met Ala Glu Arg
 210 215 220
 Pro Tyr Asp Phe Asn Ser Trp Gln Asp Ser Glu Thr Ala Leu Lys Met
 225 230 235 240
 Ala Glu Gln Met Gly Pro Asp Asp Ile Leu Leu Glu Gly Tyr Ala Glu
 245 250 255
 Met Ala Thr Tyr Arg Thr Leu Leu Ala Tyr Met Ser Thr Pro Gly Gly
 260 265 270
 Ser Lys Asp Leu Val Val Pro Leu Asp Gly Val Gly Gly Thr Ala Leu
 275 280 285
 Leu Val Lys Ala Asp Val His Arg Asp Gly Ala Met Phe Pro Pro Phe

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290 295 300
 Ala Phe Tyr His Leu Ile Glu Ser Glu Gly Phe Ala Lys Met Ala Lys
 305 310 315 320
 Arg Leu Gly Trp Gln Pro Tyr Gly Leu Pro Asn Tyr Lys Val Tyr His
 325 330 335
 Tyr Asn Glu

<210> 54
 <211> 31
 <212> PRT
 <213> Trichoderma reesei

<400> 54
 Met Leu Leu Pro Lys Gly Gly Leu Asp Trp Arg Ser Ala Arg Ala Gln
 1 5 10 15
 Ile Pro Pro Thr Arg Ala Leu Trp Asn Ala Val Thr Arg Thr Arg
 20 25 30

<210> 55
 <211> 15
 <212> PRT
 <213> Trichoderma reesei

<400> 55
 Phe Ile Leu Leu Val Gly Ile Thr Gly Leu Ile Leu Leu Leu Trp
 1 5 10 15

<210> 56
 <211> 358
 <212> PRT
 <213> Trichoderma reesei

<400> 56
 Arg Gly Val Ser Thr Ser Ala Ser Glu Met Gln Ser Phe Tyr Cys Trp
 1 5 10 15
 Gly Pro Ala Lys Pro Pro Met Glu Met Ser Pro Asn Glu His Asn Arg
 20 25 30
 Trp Asn Gly His Leu Gln Thr Pro Val Ile Phe Asn His His Ala Pro
 35 40 45
 Val Glu Val Asn Ser Ser Thr Ile Glu His Val Asp Leu Asn Pro Ile
 50 55 60
 Asn Ser Thr Lys Gln Ala Val Thr Lys Glu Glu Arg Ile Leu Ile Leu
 65 70 75 80
 Thr Pro Leu Lys Asp Ala Ala Pro Tyr Leu Ser Lys Tyr Phe Glu Leu
 85 90 95
 Leu Ala Glu Leu Thr Tyr Pro His Arg Leu Ile Asp Leu Ala Phe Leu
 100 105 110
 Val Ser Asp Ser Thr Asp Asp Thr Leu Ala Val Leu Ala Ser Glu Leu
 115 120 125
 Asp Arg Ile Gln Lys Arg Pro Asp Gln Ile Pro Phe His Ser Ala Thr
 130 135 140
 Val Ile Glu Lys Asp Phe Gly Phe Lys Leu Ser Gln Asn Val Glu Glu
 145 150 155 160
 Arg His Ser Phe Glu Ala Gln Gly Pro Arg Arg Lys Ala Met Gly Arg
 165 170 175
 Ala Arg Asn Tyr Leu Leu Tyr Thr Ala Leu Lys Pro Glu His Ser Trp
 180 185 190
 Val Tyr Trp Arg Asp Val Asp Ile Val Asp Ser Pro Thr Gly Ile Leu
 195 200 205
 Glu Asp Phe Ile Ala His Asp Arg Asp Ile Leu Val Pro Asn Ile Trp
 210 215 220
 Phe His Arg Tyr Arg Asp Gly Val Asp Ile Glu Gly Arg Phe Asp Tyr
 225 230 235 240
 Asn Ser Trp Val Glu Ser Asp Lys Gly Arg Lys Leu Ala Asn Ser Leu

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Asp	Lys	Asp	Val	Val	Leu	Ala	Glu	Gly	Tyr	Lys	Gln	Tyr	Asp	Thr	Gly
			245						250						255
Arg	Thr	Tyr	Met	Ala	Lys	Met	Gly	Asp	Trp	Arg	Glu	Asn	Lys	Asp	Val
		260					265						270		
Glu	Leu	Glu	Leu	Asp	Gly	Ile	Gly	Gly	Val	Asn	Ile	Leu	Val	Lys	Ala
	275					280					285				
Asp	Val	His	Arg	Ser	Gly	Ile	Asn	Phe	Pro	Cys	Tyr	Ala	Phe	Glu	Asn
305					310					315					320
Gln	Ala	Glu	Thr	Glu	Gly	Phe	Ala	Lys	Met	Ala	Lys	Arg	Ala	Gly	Tyr
				325					330					335	
Glu	Val	Tyr	Gly	Leu	Pro	Asn	Tyr	Val	Val	Trp	His	Ile	Asp	Thr	Glu
			340					345					350		
Glu	Lys	Gly	Gly	Asn	Ala										
		355													

<210> 57
 <211> 45
 <212> PRT
 <213> Trichoderma reesei

<400> 57
 Met Met Pro Arg His His Ser Ser Gly Phe Ser Asn Gly Tyr Pro Arg
 1 5 10 15
 Ala Asp Thr Phe Glu Ile Ser Pro His Arg Phe Gln Pro Arg Ala Thr
 20 25 30
 Leu Pro Pro His Arg Lys Arg Lys Arg Thr Ala Ile Arg
 35 40 45

<210> 58
 <211> 16
 <212> PRT
 <213> Trichoderma reesei

<400> 58
 Val Gly Ile Ala Val Val Val Ile Leu Val Leu Val Leu Trp Phe Gly
 1 5 10 15

<210> 59
 <211> 407
 <212> PRT
 <213> Trichoderma reesei

<400> 59
 Gln Pro Arg Ser Val Ala Ser Leu Ile Ser Leu Gly Ile Leu Ser Gly
 1 5 10 15
 Tyr Asp Asp Leu Lys Leu Glu Thr Val Arg Tyr Tyr Asp Leu Ser Asn
 20 25 30
 Val Gln Gly Thr Ala Arg Gly Trp Glu Arg Glu Glu Arg Ile Leu Leu
 35 40 45
 Cys Val Pro Leu Arg Asp Ala Glu Gln His Leu Pro Met Phe Phe Ser
 50 55 60
 His Leu Lys Asn Phe Thr Tyr Pro His Asn Leu Ile Asp Leu Ala Phe
 65 70 75 80
 Leu Val Ser Asp Ser Lys Asp His Thr Leu Glu Ser Leu Thr Glu His
 85 90 95
 Leu Glu Ala Ile Gln Ala Asp Pro Asp Pro Lys Gln Pro Tyr Gly Glu
 100 105 110
 Ile Ser Ile Ile Glu Lys Asp Phe Gly Gln Lys Val Asn Gln Asp Val
 115 120 125
 Glu Ser Arg His Gly Phe Ala Ala Gln Ala Ser Arg Arg Lys Leu Met
 130 135 140
 Ala Gln Ala Arg Asn Trp Leu Leu Ser Ala Ala Leu Arg Pro Tyr His
 145 150 155 160
 Ser Trp Val Tyr Trp Arg Asp Val Asp Val Glu Thr Ala Pro Phe Thr

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Ile	Leu	Glu	Asp	165	Leu	Met	Arg	His	Asn	170	Lys	Asp	Val	Ile	Val	Pro	Asn	175
Val	Trp	Arg	Pro	180	Leu	Pro	Asp	Trp	Leu	185	Gly	Gly	Glu	Gln	Pro	Tyr	Asp	190
Leu	Asn	Ser	Trp	195	Gln	Glu	Ser	Glu	Thr	200	Ala	Leu	Ala	Leu	Ala	Asp	Thr	205
Leu	210	Asp	Glu	Asp	Ala	Val	Ile	Val	Glu	215	Gly	Tyr	Ala	Glu	Tyr	Ala	Thr	220
225	Trp	Arg	Pro	His	230	Leu	Ala	Tyr	Leu	Arg	235	Asp	Pro	Tyr	Gly	Asp	Pro	Asp
Met	Glu	Met	Glu	245	Ile	Asp	Gly	Val	Gly	250	Gly	Val	Ser	Ile	Leu	Ala	Lys	255
Ala	Lys	Val	Phe	260	Arg	Ala	Gly	Val	His	265	Phe	Pro	Ala	Phe	Ser	Phe	Glu	270
Lys	His	Ala	Glu	275	Thr	Glu	Gly	Phe	Gly	280	Lys	Met	Ala	Lys	Arg	Met	His	285
Phe	305	Ser	Val	Val	Gly	Leu	Pro	His	Tyr	310	Thr	Ile	Trp	His	Leu	Tyr	Glu	315
Pro	Ser	Val	Asp	325	Asp	Ile	Lys	His	Met	330	Glu	Glu	Met	Glu	Arg	Glu	Arg	335
Ile	Ala	Arg	Glu	340	Lys	Glu	Glu	Glu	Glu	345	Arg	Lys	Lys	Lys	Glu	Ala	Gln	350
Ile	Lys	Glu	Glu	355	Phe	Gly	Asp	Ala	Asn	360	Ser	Gln	Trp	Glu	Gln	Asp	Lys	365
Gln	Gln	Met	Gln	370	Asp	Leu	Lys	Leu	Gln	375	Asp	Arg	Gly	Gly	Asp	Lys	Glu	380
Ala	385	Ala	Ala	Ala	Gly	Val	Asn	Gln	Gly	390	Ala	Ala	Ala	Lys	Ala	Ala	Gly	395
Ala	Met	Glu	Gly	Gln	Lys	Asn												400
				405														

<210> 60
 <211> 119
 <212> PRT
 <213> Trichoderma reesei

<400> 60

Met	Ser	Leu	Ser	Arg	Ser	Pro	Ser	Pro	Val	Pro	Gly	Gly	Gly	Trp	Ser
1				5					10					15	
Ser	Pro	Gly	Leu	Asn	Ile	Asn	Ser	Gly	Arg	Ser	Ser	Pro	Ser	Asn	Ala
			20					25					30		
Ala	Gly	Ser	Ser	Val	Ser	Trp	Glu	Ser	Ala	Lys	Met	Arg	Lys	Gln	Gly
		35				40					45				
Ala	Asn	Gly	Tyr	Pro	Ser	Phe	Ser	Thr	Gln	Asn	Gln	Gly	Phe	Phe	Thr
	50				55					60					
Arg	His	Met	Arg	Arg	Ile	Ser	Ser	Ser	Leu	Pro	Arg	Phe	Ala	Ala	Gly
65				70					75					80	
Pro	Gly	Asn	Thr	Tyr	Ala	Glu	Arg	Glu	Lys	Tyr	Glu	Arg	Gly	Gly	His
			85					90					95		
Ser	Pro	His	Ala	Gly	Gly	Gly	Arg	Leu	Arg	Ala	Phe	Leu	Ala	Arg	Ile
		100					105					110			
Gly	Arg	Arg	Leu	Lys	Trp	Arg									
		115													

<210> 61
 <211> 15
 <212> PRT
 <213> Trichoderma reesei

<400> 61

Ile	Leu	Leu	Pro	Leu	Ile	Ile	Ile	Cys	Thr	Ile	Val	Ala	Tyr	Tyr
1				5					10				15	

<210> 62

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<211> 325
 <212> PRT
 <213> Trichoderma reesei

<400> 62
 Gly Thr His Glu Ala Pro Gly Phe Val His Trp Trp Arg Arg Ile Ser
 1 5 10 15
 Met Gly Gly Gly Gly Glu Lys Phe Val Ile Ile Leu Gly Ala Asn Val
 20 25 30
 Gly Gly Gly Val Met Glu Trp Lys Gly Ala Arg Glu Trp Ala Ile Glu
 35 40 45
 Arg Asp Ser Val Arg Asn Lys Arg Lys Tyr Ala Thr Arg Trp Gly Tyr
 50 55 60
 Asp Leu Glu Ile Val Asp Met Lys Thr Lys Lys Arg Tyr Ala His Glu
 65 70 75 80
 Trp Arg Glu Ser Trp Glu Lys Val Asp Phe Ile Arg Ala Ala Met Arg
 85 90 95
 Lys Tyr Pro Lys Ala Glu Trp Phe Trp Trp Leu Asp Leu Asn Thr Tyr
 100 105 110
 Val Met Glu Pro Ser Tyr Ser Leu Gln Arg His Leu Phe Asn His Leu
 115 120 125
 Asp Arg His Val Tyr Arg Asp Ile Asn Val Phe Asn Pro Leu Asn Ile
 130 135 140
 Thr His Pro Pro Thr Glu Tyr Leu Asp Ala Glu Ala Arg Ser Pro
 145 150 155 160
 Val Gly Asp Gly Asn Ile Asn Ser Val Asn Leu Met Leu Thr Gln Asp
 165 170 175
 Cys Ser Gly Phe Asn Leu Gly Ser Phe Phe Ile Arg Arg Ser Ala Trp
 180 185 190
 Thr Glu Gln Leu Leu Asp Ile Trp Trp Asp Pro Val Leu Tyr Glu Gln
 195 200 205
 Lys His Met Glu Trp Glu His Lys Glu Gln Asp Ala Leu Glu Gln Leu
 210 215 220
 Tyr Arg Thr Gln Pro Trp Ile Arg Gln His Thr Gly Phe Leu Pro Gln
 225 230 235 240
 Arg Leu Ile Asn Ser Phe Pro Pro Ala Ala Cys Ala Asp Glu Ser Gly
 245 250 255
 Leu Asn Asn Thr Arg Ile His Tyr Asn Glu Lys Asp Arg Asp Phe Val
 260 265 270
 Val Asn Met Ala Gly Cys Glu Trp Gly Arg Asp Cys Trp Gly Glu Met
 275 280 285
 Tyr His Tyr Arg Glu Phe Ser Tyr Trp Leu Asn Arg Asn Pro Trp Glu
 290 295 300
 Leu Phe Lys Glu Glu Ile Val Ala Val Ile Trp Tyr Lys Leu Thr Gly
 305 310 315 320
 Gln Arg Val Lys Leu
 325

<210> 63
 <211> 33
 <212> PRT
 <213> Trichoderma reesei

<400> 63
 Met His Phe Ala Tyr Pro Ser Arg Lys Ser Ser Asn Pro Pro Pro Phe
 1 5 10 15
 Arg Pro Arg Ser Thr Arg Leu Pro Gly Leu Arg Arg Ser Arg Ile Lys
 20 25 30
 Thr

<210> 64
 <211> 15
 <212> PRT
 <213> Trichoderma reesei

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<400> 64

Ile Gly Ile Val Leu Phe Leu Val Leu Ala Thr Leu Trp Phe Phe
 1 5 10 15

<210> 65

<211> 262

<212> PRT

<213> Trichoderma reesei

<400> 65

Ser Asn Pro Arg Val Pro Arg Pro Asp Pro Glu Arg Val Pro Ser Gly
 1 5 10 15
 Arg Pro Pro Val Val Leu Val Thr Val Ile Asp Pro Thr Gln Tyr Pro
 20 25 30
 Asn Ala Tyr Leu Lys Thr Ile Lys Glu Asn Arg Glu Gln Tyr Ala Ala
 35 40 45
 Lys His Gly Tyr Glu Ala Phe Ile Val Lys Ala Tyr Asp Tyr Asp Thr
 50 55 60
 Gln Gly Ala Pro Gln Ser Trp Ser Lys Leu Met Ala Met Arg His Ala
 65 70 75 80
 Leu Thr Lys Phe Pro Glu Cys Arg Phe Val Trp Tyr Leu Asp Gln Asp
 85 90 95
 Ala Tyr Ile Met Asp Met Ser Lys Ser Leu Glu Glu Gln Leu Leu Asn
 100 105 110
 Arg Gln Lys Leu Glu Ser Leu Met Ile Lys Asn Tyr Pro Val Val Pro
 115 120 125
 Pro Asp Ser Ile Ile Lys Thr Phe Ser His Leu Arg Pro Asp Glu Val
 130 135 140
 Asp Leu Ile Val Ser Gln Asp Ser Ser Gly Leu Val Ala Gly Ser Val
 145 150 155 160
 Val Val Arg Asn Ser Gln Trp Ser Lys Phe Leu Leu Glu Thr Trp Met
 165 170 175
 Asp Pro Leu Tyr Arg Ser Tyr Asn Phe Gln Lys Ala Glu Arg His Ala
 180 185 190
 Leu Glu His Ile Val Gln Trp His Pro Thr Ile Leu Ser Lys Leu Ala
 195 200 205
 Leu Val Pro Gln Arg Thr Leu Gly Pro Tyr Thr Arg Thr Asp Gln Gly
 210 215 220
 Asp Ala Tyr Gln Asp Gly Asp Phe Val Val Met Phe Thr Gly Cys Thr
 225 230 235 240
 Lys Ser Gly Glu Gln Ser Cys Glu Thr Val Ser Ala Ser Tyr Tyr Gln
 245 250 255
 Lys Trp Ser Ser Ser Leu
 260

<210> 66

<211> 90

<212> PRT

<213> Trichoderma reesei

<400> 66

Met Ile Arg Asp Pro Phe Gly Ile His Ser Lys Asn Ala Phe Lys Ala
 1 5 10 15
 Thr Ala Leu Arg Ala Ala Arg Asp Ile Lys Glu Ala Ala Thr Gln Ala
 20 25 30
 Gly Ala Asn Ala Leu Glu Met Ser Phe Ser Leu Pro Lys His Val Pro
 35 40 45
 Asp Phe Gly Asp Pro Ser Arg Ala Leu Glu Asp Arg Ala Trp Ala Ala
 50 55 60
 Leu Leu Pro Met Tyr Lys Asp Lys Pro Tyr Ala Tyr Ala Pro Ser Met
 65 70 75 80
 Arg Leu Arg Pro Trp Trp Arg Arg Arg Lys
 85 90

<210> 67

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<211> 19

<212> PRT

<213> Trichoderma reesei

<400> 67

Val	Leu	Gly	Met	Ile	Ala	Ala	Ala	Val	Met	Phe	Val	Leu	Tyr	Val	Thr
1				5					10					15	
Gly	Phe	Phe													

<210> 68

<211> 565

<212> PRT

<213> Trichoderma reesei

<400> 68

Ser	Ser	Gly	Gln	Thr	Glu	Glu	Ala	Lys	Lys	Lys	Ala	Ser	Gly	Ser	Ala
1				5					10					15	
Phe	Ser	Trp	Leu	Gly	Leu	Ser	Gln	Glu	Arg	Gly	Gly	Val	Asp	Trp	Asp
			20					25					30		
Glu	Arg	Arg	Lys	Ser	Val	Val	Glu	Ala	Phe	Glu	Val	Trp	Asp	Ala	Tyr
		35					40					45			
Glu	Arg	Tyr	Ala	Trp	Gly	Lys	Asp	Glu	Phe	His	Pro	Ile	Ser	Lys	Asn
		50				55					60				
Gly	Arg	Asn	Met	Ala	Pro	Lys	Gly	Leu	Gly	Trp	Ile	Ile	Ile	Asp	Ser
65					70					75				80	
Leu	Asp	Thr	Met	Met	Leu	Met	Asn	Gln	Thr	Thr	Arg	Leu	Gln	His	Ala
			85						90					95	
Arg	Glu	Trp	Ile	Ser	Thr	Ser	Leu	Thr	Trp	Asp	Gln	Asp	Gln	Asp	Val
			100					105					110		
Asn	Thr	Phe	Glu	Thr	Thr	Ile	Arg	Met	Leu	Gly	Gly	Leu	Leu	Ser	Ala
		115					120					125			
His	Tyr	Leu	Ser	Thr	Glu	Phe	Pro	Glu	Leu	Ala	Pro	Leu	Thr	Glu	Asp
		130				135					140				
Asp	Glu	Gly	Ala	Pro	Gly	Glu	Asp	Leu	Tyr	Leu	Glu	Lys	Ala	Lys	Asp
145					150					155				160	
Leu	Ala	Asp	Arg	Leu	Leu	Ser	Ala	Phe	Glu	Ser	Glu	Ser	Gly	Ile	Pro
			165						170					175	
Tyr	Ala	Ser	Val	Asn	Ile	Gly	Glu	Tyr	Lys	Gly	Pro	Ser	His	Ser	Asp
			180					185					190		
Asn	Gly	Ala	Ser	Ser	Thr	Ala	Glu	Ala	Thr	Thr	Leu	Gln	Leu	Glu	Phe
		195					200					205			
Lys	Tyr	Leu	Ala	Lys	Leu	Thr	Gly	Glu	Lys	Asn	Phe	Trp	Asp	Lys	Val
		210				215					220				
Glu	Lys	Val	Met	Glu	Val	Val	Asp	Asp	Asn	Gln	Pro	Glu	Asp	Gly	Leu
225					230					235				240	
Val	Pro	Ile	Tyr	Ile	Tyr	Ala	Thr	Thr	Gly	Glu	Phe	Arg	Gly	Gln	Asn
			245						250					255	
Ile	Arg	Leu	Gly	Ser	Arg	Gly	Asp	Ser	Tyr	Tyr	Glu	Tyr	Leu	Ile	Lys
			260					265					270		
Gln	Tyr	Leu	Gln	Thr	Asn	Lys	Gln	Glu	Pro	Ile	Tyr	Glu	Glu	Met	Trp
		275					280					285			
Asp	Glu	Ala	Leu	Ala	Gly	Val	Arg	Lys	His	Leu	Val	Thr	Tyr	Thr	Glu
		290				295					300				
Pro	Ser	Glu	Phe	Thr	Ile	Ile	Ala	Glu	Arg	Pro	Asp	Gly	Leu	Glu	His
305					310					315				320	
Pro	Met	Ser	Pro	Lys	Met	Asp	His	Leu	Val	Cys	Phe	Met	Pro	Gly	Thr
			325						330					335	
Ile	Ala	Leu	Ala	Ala	Thr	Gly	Gly	Leu	Thr	Glu	Ala	Glu	Ala	Arg	Lys
			340					345					350		
Leu	Ser	Thr	Trp	Asn	Lys	Lys	Lys	Asp	Asp	Asp	Met	Gln	Leu	Ala	Arg
		355					360					365			
Glu	Leu	Met	His	Thr	Cys	Trp	Gly	Met	Tyr	Lys	Tyr	Met	Lys	Thr	Gly
		370				375					380				
Leu	Ala	Pro	Glu	Ile	Met	Tyr	Phe	Asn	Ile	Pro	Asn	Pro	Pro	Pro	Glu
385					390					395					400
Ser	Ser	Ala	Pro	His	Gln	Ala	Pro	Ala	Ala	Phe	Asp	Glu	Asp	Pro	His

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Ala	Glu	Trp	Arg	Lys	Asp	Phe	Val	Val	His	Ser	Asn	Asp	Val	His	Asn
			420					425					430		
Leu	Gln	Arg	Pro	Glu	Thr	Val	Glu	Ser	Leu	Phe	Tyr	Met	Trp	Arg	Ile
		435					440					445			
Thr	Gly	Asp	Val	Lys	Tyr	Arg	Glu	Trp	Gly	Trp	Asp	Met	Phe	Lys	Ser
	450					455					460				
Phe	Val	Asn	Tyr	Thr	Ala	Val	Glu	Asp	Gln	Gly	Gly	Phe	Thr	Ser	Leu
465					470				475					480	
Leu	Asp	Ala	Asn	Ser	Ile	Pro	Pro	Thr	Pro	Lys	Asp	Asn	Met	Glu	Ser
			485					490					495		
Phe	Trp	Leu	Ala	Glu	Thr	Leu	Lys	Tyr	Met	Tyr	Leu	Leu	Phe	Ser	Pro
			500					505					510		
Asn	Asp	Val	Leu	Pro	Leu	His	Lys	Ile	Val	Leu	Asn	Thr	Glu	Ala	His
		515					520					525			
Pro	Phe	Pro	Arg	Phe	Asp	Met	Gly	Pro	Leu	Phe	Ser	Thr	Gly	Trp	Lys
	530					535					540				
Arg	Lys	Pro	Arg	Asp	Gly	Ser	Ala	Lys	Lys	Lys	Ala	Thr	Thr	Ala	Ala
545					550					555					560
Thr	Thr	Asp	Ala	Glu											
				565											

<210> 69
 <211> 7
 <212> PRT
 <213> Trichoderma reesei

<400> 69
 Met Ala Arg Arg Arg Tyr Arg
 1 5

<210> 70
 <211> 15
 <212> PRT
 <213> Trichoderma reesei

<400> 70
 Leu Phe Met Ile Cys Ala Ala Val Ile Leu Phe Leu Leu Tyr Arg
 1 5 10 15

<210> 71
 <211> 871
 <212> PRT
 <213> Trichoderma reesei

<400> 71
 Val Ser Gln Asn Thr Trp Asp Asp Ser Ala His Tyr Ala Thr Leu Arg
 1 5 10 15
 His Pro Pro Ala Ser Asn Pro Pro Ala Gly Gly Glu Ser Pro Leu
 20 25 30
 Lys Pro Ala Ala Lys Pro Glu His Glu His Glu His Glu Asn Gly Tyr
 35 40 45
 Ala Pro Glu Ser Lys Pro Lys Pro Gln Ser Glu Pro Lys Pro Glu Ser
 50 55 60
 Lys Pro Ala Pro Glu His Ala Ala Gly Gly Gln Lys Ser Gln Gly Lys
 65 70 75 80
 Pro Ser Tyr Glu Asp Asp Glu Glu Thr Gly Lys Asn Pro Pro Lys Ser
 85 90 95
 Ala Val Ile Pro Ser Asp Thr Arg Leu Pro Pro Asp Asn Lys Val His
 100 105 110
 Trp Arg Pro Val Lys Glu His Phe Pro Val Pro Ser Glu Ser Val Ile
 115 120 125
 Ser Leu Pro Thr Gly Lys Pro Leu Lys Val Pro Arg Val Gln His Glu
 130 135 140
 Phe Gly Val Glu Ser Pro Glu Ala Lys Ser Arg Arg Val Ala Arg Gln

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145	Glu	Arg	Val	Gly	Lys	150	Glu	Ile	Glu	Arg	Ala	Trp	Ser	Gly	Tyr	Lys	160	Lys
					165						170					175		
	Phe	Ala	Trp	Met	His		Asp	Glu	Leu	Ser	Pro	Val	Ser	Ala	Lys	His	Arg	
				180						185					190			
	Asp	Pro	Phe	Cys	Gly		Trp	Ala	Ala	Thr	Leu	Val	Asp	Ser	Leu	Asp	Thr	
			195						200					205				
	Leu	Trp	Ile	Ala	Gly		Leu	Lys	Glu	Gln	Phe	Asp	Glu	Ala	Ala	Arg	Ala	
		210						215					220					
	Val	Glu	Gln	Ile	Asp		Phe	Thr	Thr	Thr	Pro	Arg	Asn	Asn	Ile	Pro	Val	
		225					230					235					240	
	Phe	Glu	Thr	Thr	Ile		Arg	Tyr	Leu	Gly	Gly	Leu	Leu	Gly	Ala	Phe	Asp	
				245						250						255		
	Val	Ser	Gly	Gly	His		Asp	Gly	Gly	Tyr	Pro	Met	Leu	Leu	Thr	Lys	Ala	
			260							265					270			
	Val	Glu	Leu	Ala	Glu		Ile	Leu	Met	Gly	Ile	Phe	Asp	Thr	Pro	Asn	Arg	
		275							280					285				
	Met	Pro	Ile	Leu	Tyr		Tyr	Gln	Trp	Gln	Pro	Glu	Tyr	Ala	Ser	Gln	Pro	
		290						295					300					
	His	Arg	Ala	Gly	Ser		Val	Gly	Ile	Ala	Glu	Leu	Gly	Thr	Leu	Ser	Met	
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	Glu	Phe	Thr	Arg	Leu		Ala	Gln	Leu	Thr	Ser	Gln	Tyr	Lys	Tyr	Tyr	Asp	
				325							330					335		
	Ala	Val	Asp	Arg	Ile		Thr	Asp	Ala	Leu	Ile	Glu	Leu	Gln	Lys	Gln	Gly	
			340							345					350			
	Thr	Ser	Ile	Pro	Gly		Leu	Phe	Pro	Glu	Asn	Leu	Asp	Ala	Ser	Gly	Cys	
			355						360					365				
	Asn	His	Thr	Ala	Thr		Ala	Leu	Arg	Ser	Ser	Leu	Ser	Glu	Ala	Ala	Gln	
		370						375					380					
	Lys	Gln	Met	Asp	Glu		Asp	Leu	Ser	Asn	Lys	Pro	Glu	Asn	Tyr	Arg	Pro	
		385					390					395					400	
	Gly	Lys	Asn	Ser	Lys		Ala	Asp	Pro	Gln	Thr	Val	Glu	Lys	Gln	Pro	Ala	
				405							410					415		
	Lys	Lys	Gln	Asn	Glu		Pro	Val	Glu	Lys	Ala	Lys	Gln	Val	Pro	Thr	Gln	
			420							425					430			
	Gln	Thr	Ala	Lys	Arg		Gly	Lys	Pro	Phe	Gly	Ala	Asn	Gly	Phe	Thr		
			435						440				445					
	Ala	Asn	Trp	Asp	Cys		Val	Pro	Gln	Gly	Leu	Val	Val	Gly	Gly	Tyr	Gly	
		450						455					460					
	Phe	Gln	Gln	Tyr	His		Met	Gly	Gly	Gly	Gln	Asp	Ser	Ala	Tyr	Glu	Tyr	
		465					470					475					480	
	Phe	Pro	Lys	Glu	Tyr		Leu	Leu	Leu	Gly	Gly	Leu	Glu	Ser	Lys	Tyr	Gln	
				485						490					495			
	Lys	Leu	Tyr	Val	Asp		Ala	Val	Glu	Ala	Ile	Asn	Glu	Trp	Leu	Leu	Tyr	
			500						505					510				
	Arg	Pro	Met	Thr	Asp		Gly	Asp	Trp	Asp	Ile	Leu	Phe	Pro	Ala	Lys	Val	
			515						520					525				
	Ser	Thr	Ala	Gly	Asn		Pro	Ser	Gln	Asp	Leu	Val	Ala	Thr	Phe	Glu	Val	
		530						535					540					
	Thr	His	Leu	Thr	Cys		Phe	Ile	Gly	Gly	Met	Tyr	Gly	Leu	Gly	Gly	Lys	
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	Gly	Cys	Val	Trp	Ala		Tyr	Gln	Ser	Thr	Val	Ser	Gly	Ile	Met	Pro	Glu	
			580							585					590			
	Gly	Ser	Gln	Val	Leu		Ala	Cys	Pro	Thr	Leu	Glu	Lys	Cys	Asp	Phe	Asn	
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	Glu	Thr	Leu	Trp	Trp		Glu	Lys	Leu	Asp	Pro	Ala	Lys	Asp	Trp	Arg	Asp	
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	Lys	Gln	Val	Ala	Asp		Asp	Lys	Asp	Lys	Ala	Thr	Val	Gly	Glu	Ala	Leu	
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	His	Lys	Arg	Ala	Ala		Val	Pro	Leu	Pro	Lys	Pro	Gly	Ala	Asp	Asp	Asp	
			660							665					670			
	Val	Gly	Ser	Glu	Leu		Pro	Gln	Ser	Leu	Lys	Asp	Lys	Ile	Gly	Phe	Lys	
			675						680					685				
	Asn	Gly	Glu	Gln	Lys		Lys	Pro	Thr	Gly	Ser	Ser	Val	Gly	Ile	Gln	Arg	

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690	Asp	Pro	Asp	Ala	Pro	Val	695	Asp	Ser	Val	Leu	Glu	700	Ala	His	Arg	Leu	Pro
705	Pro	Gln	Glu	Pro	Glu	Glu	710	Gln	Gln	Val	Ile	715	Leu	Pro	Asp	Lys	Pro	Gln
							725	Val	Lys	Gln	Arg	730	Ile	Ala	Glu	Met	Gly	735
	Thr	His	Glu	Glu	Phe	Val						745	Ile	Ala	Glu	Met	Gly	Phe
	Pro	Gly	Val	Val	His	Ile	Gln	Ser	Arg	Gln	Tyr		Ile	Leu	Arg	Pro	Glu	
	Ala	Ile	Glu	Ser	Val	Trp	Tyr	Met	Tyr	Arg	Ile	Thr	765	Gly	Asp	Pro	Ile	
	Trp	Met	Glu	Lys	Gly	Trp	Lys	Met	Phe	Glu	Ala	Thr	780	Ile	Arg	Ala	Thr	
	Arg	Thr	Glu	Ile	Ala	Asn	Ser	Ala	Ile	Asp	Asp	Val	810	Asn	Ser	Glu	Glu	
	Pro	Gly	Leu	Lys	Asp	Glu	Met	Glu	Ser	Phe	Trp	Leu	820	Ala	Glu	Thr	Leu	
	Lys	Tyr	Tyr	Tyr	Leu	Leu	Phe	Ser	Glu	Pro	Ser	Val	830	Ile	Ser	Leu	Asp	
	Glu	Trp	Val	Leu	Asn	Thr	Glu	Ala	His	Pro	Phe	Lys	845	Arg	Pro	Gly	Gly	
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<400> 72
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<210> 73
 <211> 15
 <212> PRT
 <213> Trichoderma reesei

<400> 73
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 1 5 10 15

<210> 74
 <211> 542
 <212> PRT
 <213> Trichoderma reesei

<400> 74
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 Val Lys Asp Met Lys Thr Leu Pro Gln Gly Thr Pro Val Thr Phe Pro
 35 40 45
 Arg Leu Gln Leu Arg Asn Gln Ser Glu Ala Gln Asp Asp Thr Thr Lys
 50 55 60
 Ala Arg Lys Gln Ala Val Lys Asp Ala Phe Val Lys Ser Trp Glu Ala
 65 70 75 80
 Tyr Lys Thr Tyr Ala Trp Thr Lys Asp Gln Leu Gln Pro Leu Ser Leu
 85 90 95
 Ser Gly Lys Glu Thr Phe Ser Gly Trp Ser Ala Gln Leu Val Asp Ala
 100 105 110
 Leu Asp Thr Leu Trp Ile Met Asp Leu Lys Asp Asp Phe Phe Leu Ala
 115 120 125
 Val Lys Glu Val Ala Val Ile Asp Trp Ser Lys Thr Lys Asp Asn Lys

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130						135						140					
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Ala	Ala	Tyr	Asp	Leu	Ser	Gln	Glu	Pro	Val	Leu	Arg	Ala	Lys	Ala	Ile		
				165					170					175			
Glu	Leu	Gly	Asp	Thr	Leu	Tyr	Ala	Thr	Phe	Asp	Thr	Pro	Asn	Arg	Leu		
			180					185					190				
Pro	Ser	His	Trp	Leu	Asp	Tyr	Ser	Lys	Ala	Lys	Lys	Gly	Thr	Gln	Arg		
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Ala	Asp	Asp	Ser	Met	Ser	Gly	Ala	Ala	Gly	Gly	Thr	Leu	Cys	Met	Glu		
	210					215					220						
Phe	Thr	Arg	Leu	Ser	Gln	Ile	Thr	Gly	Asp	Pro	Lys	Tyr	Tyr	Asp	Ala		
225					230					235					240		
Thr	Glu	Arg	Ile	Lys	Gln	Phe	Phe	Tyr	Arg	Phe	Gln	Asn	Glu	Thr	Thr		
			245						250					255			
Leu	Pro	Gly	Met	Trp	Pro	Val	Met	Met	Asn	Tyr	Arg	Glu	Glu	Thr	Met		
			260				265						270				
Val	Glu	Ser	Arg	Tyr	Ser	Met	Gly	Ser	Ala	Asp	Ser	Leu	Tyr	Glu			
		275					280				285						
Tyr	Leu	Val	Lys	Met	Pro	Ala	Leu	Leu	Gly	Gly	Leu	Asp	Pro	Gln	Tyr		
	290					295					300						
Pro	Glu	Met	Ala	Ile	Arg	Ala	Leu	Asp	Thr	Ala	Arg	Asp	Asn	Leu	Leu		
305					310					315					320		
Phe	Arg	Pro	Met	Thr	Glu	Lys	Gly	Asp	Asn	Ile	Leu	Ala	Leu	Gly	Asn		
			325						330					335			
Ala	Leu	Val	Asp	His	Gly	Asn	Val	Gln	Arg	Ile	Thr	Glu	Met	Gln	His		
			340					345					350				
Leu	Thr	Cys	Phe	Ala	Gly	Gly	Met	Tyr	Ala	Met	Ala	Gly	Lys	Leu	Phe		
		355					360					365					
Lys	Arg	Asp	Asp	Tyr	Val	Asp	Leu	Gly	Ser	Arg	Ile	Ser	Ser	Gly	Cys		
	370					375					380						
Val	Trp	Ala	Tyr	Asp	Ser	Phe	Pro	Ser	Gly	Ile	Met	Pro	Glu	Ser	Ala		
385					390					395					400		
Asp	Met	Ala	Ala	Cys	Ala	Lys	Leu	Asp	Gly	Pro	Cys	Pro	Tyr	Asp	Glu		
			405						410					415			
Val	Lys	Ala	Pro	Val	Asp	Pro	Asp	Gly	Arg	Arg	Pro	His	Gly	Phe	Ile		
			420					425					430				
His	Val	Lys	Ser	Arg	His	Tyr	Leu	Leu	Arg	Pro	Glu	Ala	Ile	Glu	Ser		
		435					440					445					
Val	Phe	Tyr	Met	Trp	Arg	Ile	Thr	Gly	Asp	Gln	Val	Trp	Arg	Asp	Thr		
	450					455					460						
Ala	Trp	Arg	Met	Trp	Glu	Asn	Ile	Val	Arg	Glu	Ala	Glu	Thr	Glu	His		
465					470					475					480		
Ala	Phe	Ala	Ile	Val	Glu	Asp	Val	Thr	Arg	Thr	Ala	Ser	Lys	Leu	Thr		
			485						490					495			
Asn	Asn	Tyr	Leu	Gln	Thr	Phe	Trp	Leu	Ala	Glu	Thr	Leu	Lys	Tyr			
		500					505					510					
Phe	Tyr	Leu	Ile	Phe	Asp	Asp	Glu	Ser	Ala	Ile	Asp	Leu	Asp	Lys	Trp		
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Val	Phe	Asn	Thr	Glu	Ala	His	Pro	Phe	Lys	Arg	Pro	Ala	Val				
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<210> 76
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<400> 76

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<210> 77

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<212> PRT

<213> Trichoderma reesei

<400> 77

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Pro Leu Thr Pro Tyr Pro Asp Ser Ser Phe Asp Trp Ser Ala
35 40 45
Ile Pro Phe Arg Tyr Pro Pro His Asn Thr Thr His Leu Pro Pro Arg
50 55 60
His Lys Gln Pro Pro Leu Pro Arg Ile Gln His Arg Phe Gly Pro Glu
65 70 75 80
Ser Pro Ala Ala Ala Lys Glu Arg Ile Lys Arg Leu Lys Ala Val Lys
85 90 95
Gln Val Phe Leu Arg Ala Trp Gln Ala Tyr Lys Gly Tyr Ala Trp Lys
100 105 110
Gln Asp Ala Leu Leu Pro Ile Ser Gly Gly Gly Arg Glu Gln Phe Ser
115 120 125
Gly Trp Ala Ala Thr Leu Val Asp Ala Leu Asp Thr Leu Trp Ile Met
130 135 140
Gly Leu Arg Glu Glu Phe Asp Glu Ala Val Ala Ala Val Ala Glu Ile
145 150 155 160
Asp Phe Gly Ser Ser Thr Ser Ser Arg Val Asn Ile Phe Glu Thr Asn
165 170 175
Ile Arg Tyr Leu Gly Gly Leu Leu Ala Tyr Asp Leu Ser Gly Arg
180 185 190
Glu Val Leu Leu Lys Lys Ala Val Glu Leu Gly Asp Leu Ile Tyr Ala
195 200 205
Gly Phe Asn Thr Glu Asn Gly Met Pro Val Asp Phe Leu Asn Phe Tyr
210 215 220
Ser Ala Lys Ser Gly Glu Gly Leu Val Val Glu Ser Ser Val Val Ser
225 230 235 240
Ala Ser Pro Gly Thr Leu Ser Leu Glu Leu Ala His Leu Ser Gln Val
245 250 255
Thr Gly Asp Asp Lys Tyr Tyr Ser Ala Val Ser Gln Val Met Asp Val
260 265 270
Phe Tyr Gln Gly Gln Asn Lys Thr Arg Leu Pro Gly Val Trp Pro Ile
275 280 285
Asp Val Asn Met Arg Ala Lys Asp Val Val Ser Gly Ser Arg Phe Thr
290 295 300
Leu Gly Gly Cys Ala Asp Ser Leu Tyr Glu Tyr Leu Pro Lys Met His
305 310 315 320
Gln Leu Leu Gly Gly Glu Pro Lys Tyr Glu Thr Met Ser Arg Thr
325 330 335
Phe Leu Gln Ala Ala Asp Arg His Phe Val Phe Arg Pro Met Leu Pro
340 345 350
Gly Ala Glu Glu Asp Val Leu Met Pro Gly Asn Val Asn Val Asp Glu
355 360 365
Asp Ser Gly Glu Ala Val Leu Asp Pro Glu Thr Glu His Leu Ala Cys
370 375 380
Phe Val Gly Gly Met Phe Gly Leu Ala Gly Arg Leu Phe Ser Arg Pro
385 390 395 400
Asp Asp Val Glu Thr Gly Val Arg Leu Thr Asn Gly Cys Val Tyr Ala
405 410 415
Tyr Arg Ala Phe Pro Thr Gly Met Met Pro Glu Arg Leu Asp Leu Ala
420 425 430
Pro Cys Arg Asp Arg Ser Ser Arg Cys Pro Trp Asp Glu Glu His Trp
435 440 445
Leu Glu Glu Arg Ala Lys Arg Pro Glu Trp Glu Pro His Leu Pro Arg

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450	Gly	Phe	Thr	Ser	Ala	Lys	Asp	Pro	Arg	Tyr	Leu	Leu	Arg	Pro	Glu	Ala
465	Ile	Glu	Ser	Val	Phe	Tyr	Ser	Tyr	Arg	Ile	Thr	Gly	Arg	Gln	Glu	Phe
					485					490						495
	Gln	Thr	Ala	Ala	Trp	Asp	Met	Phe	Thr	Ala	Val	Glu	Lys	Gly	Thr	Arg
				500					505					510		
	Thr	Gln	Phe	Ala	Asn	Ala	Ala	Val	Leu	Asp	Val	Thr	Arg	Ala	Ala	Asp
			515				520						525			
	Glu	Leu	Pro	Gln	Glu	Asp	Tyr	Met	Glu	Ser	Phe	Trp	Leu	Ala	Glu	Thr
		530				535						540				
	Leu	Lys	Tyr	Phe	Tyr	Leu	Met	Phe	Thr	Thr	Pro	Asp	Ile	Ile	Ser	Leu
545					550						555					560
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<211> 17

<212> PRT

<213> Trichoderma reesei

<400> 78

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Leu															

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<211> 1053

<212> PRT

<213> Trichoderma reesei

<400> 79

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Glu	Thr	Val	Asp	Met	Phe	Tyr	His	Gly	Tyr	Ser	Asn	Tyr	Met	Glu	His
			20					25					30		
Ala	Phe	Pro	Glu	Asp	Glu	Leu	Arg	Pro	Ile	Ser	Cys	Thr	Pro	Leu	Thr
		35					40					45			
Arg	Asp	Arg	Asp	Asn	Pro	Gly	Arg	Ile	Ser	Leu	Asn	Asp	Ala	Leu	Gly
	50					55					60				
Asn	Tyr	Ser	Leu	Thr	Leu	Ile	Asp	Ser	Leu	Ser	Thr	Leu	Ala	Ile	Leu
65					70				75					80	
Ala	Gly	Gly	Pro	Gln	Asn	Gly	Pro	Tyr	Thr	Gly	Pro	Gln	Ala	Leu	Ser
			85					90					95		
Asp	Phe	Gln	Asp	Gly	Val	Ala	Glu	Phe	Val	Arg	His	Tyr	Gly	Asp	Gly
			100					105					110		
Arg	Ser	Gly	Pro	Ser	Gly	Ala	Gly	Ile	Arg	Ala	Arg	Gly	Phe	Asp	Leu
		115				120						125			
Asp	Ser	Lys	Val	Gln	Val	Phe	Glu	Thr	Val	Ile	Arg	Gly	Val	Gly	Gly
	130					135					140				
Leu	Leu	Ser	Ala	His	Leu	Phe	Ala	Ile	Gly	Glu	Leu	Pro	Ile	Thr	Gly
145					150				155					160	
Tyr	Val	Pro	Arg	Pro	Glu	Gly	Val	Ala	Gly	Asp	Asp	Pro	Leu	Glu	Leu
			165					170					175		
Ala	Pro	Ile	Pro	Trp	Pro	Asn	Gly	Phe	Arg	Tyr	Asp	Gly	Gln	Leu	Leu
			180					185					190		
Arg	Leu	Ala	Leu	Asp	Leu	Ser	Glu	Arg	Leu	Leu	Pro	Ala	Phe	Tyr	Thr
		195					200					205			
Pro	Thr	Gly	Ile	Pro	Tyr	Pro	Arg	Val	Asn	Leu	Arg	Ser	Gly	Ile	Pro
	210					215					220				
Phe	Tyr	Val	Asn	Ser	Pro	Leu	His	Gln	Asn	Leu	Gly	Glu	Ala	Val	Glu
225					230				235					240	
Glu	Gln	Ser	Gly	Arg	Pro	Glu	Ile	Thr	Glu	Thr	Cys	Ser	Ala	Gly	Ala
			245						250					255	
Gly	Ser	Leu	Val	Leu	Glu	Phe	Thr	Val	Leu	Ser	Arg	Leu	Thr	Gly	Asp

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Ala	Arg	Phe	260	Glu	Gln	Ala	Ala	Lys	265	Arg	Ala	Phe	Trp	Glu	270	Val	Trp	His
		275						280						285				
Arg	Arg	Ser	Glu	Ile	Gly	Leu	Ile	Gly	Asn	Gly	Ile	Asp	Ala	Glu	Arg			
	290					295					300							
Gly	Leu	Trp	Ile	Gly	Pro	His	Ala	Gly	Ile	Gly	Ala	Gly	Met	Asp	Ser			
305					310					315					320			
Phe	Phe	Glu	Tyr	Ala	Leu	Lys	Ser	His	Ile	Leu	Leu	Ser	Gly	Leu	Gly			
				325					330					335				
Met	Pro	Asn	Ala	Ser	Thr	Ser	Arg	Arg	Gln	Ser	Thr	Thr	Ser	Trp	Leu			
			340					345					350					
Asp	Pro	Asn	Ser	Leu	His	Pro	Pro	Leu	Pro	Pro	Glu	Met	His	Thr	Ser			
		355						360				365						
Asp	Ala	Phe	Leu	Gln	Ala	Trp	His	Gln	Ala	His	Ala	Ser	Val	Lys	Arg			
	370					375					380							
Tyr	Leu	Tyr	Thr	Asp	Arg	Ser	His	Phe	Pro	Tyr	Tyr	Ser	Asn	Asn	His			
385					390					395				400				
Arg	Ala	Thr	Gly	Gln	Pro	Tyr	Ala	Met	Trp	Ile	Asp	Ser	Leu	Gly	Ala			
				405					410					415				
Phe	Tyr	Pro	Gly	Leu	Leu	Ala	Leu	Ala	Gly	Glu	Val	Glu	Glu	Ala	Ile			
			420					425					430					
Glu	Ala	Asn	Leu	Val	Tyr	Thr	Ala	Leu	Trp	Thr	Arg	Tyr	Ser	Ala	Leu			
		435						440				445						
Pro	Glu	Arg	Trp	Ser	Val	Arg	Glu	Gly	Asn	Val	Glu	Ala	Gly	Ile	Gly			
	450					455					460							
Trp	Trp	Pro	Gly	Arg	Pro	Glu	Phe	Ile	Glu	Ser	Thr	Tyr	His	Ile	Tyr			
465					470				475					480				
Arg	Ala	Thr	Arg	Asp	Pro	Trp	Tyr	Leu	His	Val	Gly	Glu	Met	Val	Leu			
				485					490					495				
Arg	Asp	Ile	Arg	Arg	Cys	Tyr	Ala	Glu	Cys	Gly	Trp	Ala	Gly	Leu				
			500					505				510						
Gln	Asp	Val	Gln	Thr	Gly	Glu	Lys	Gln	Asp	Arg	Met	Glu	Ser	Phe	Phe			
		515					520					525						
Leu	Gly	Glu	Thr	Ala	Lys	Tyr	Met	Tyr	Leu	Leu	Phe	Asp	Pro	Asp	His			
	530					535					540							
Pro	Leu	Asn	Lys	Leu	Asp	Ala	Ala	Tyr	Val	Phe	Thr	Thr	Glu	Gly	His			
545					550					555				560				
Pro	Leu	Ile	Ile	Pro	Lys	Ser	Lys	Arg	Gly	Ser	Gly	Ser	His	Asn	Arg			
				565					570					575				
Gln	Asp	Arg	Ala	Arg	Lys	Ala	Lys	Lys	Ser	Arg	Asp	Val	Ala	Val	Tyr			
			580					585					590					
Thr	Tyr	Tyr	Asp	Glu	Ser	Phe	Thr	Asn	Ser	Cys	Pro	Ala	Pro	Arg	Pro			
		595					600					605						
Pro	Ser	Glu	His	His	Leu	Ile	Gly	Ser	Ala	Thr	Ala	Ala	Arg	Pro	Asp			
	610					615					620							
Leu	Phe	Ser	Val	Ser	Arg	Phe	Thr	Asp	Leu	Tyr	Arg	Thr	Pro	Asn	Val			
625					630					635				640				
His	Gly	Pro	Leu	Glu	Lys	Val	Glu	Met	Arg	Asp	Lys	Lys	Lys	Gly	Arg			
				645					650					655				
Val	Val	Arg	Tyr	Arg	Ala	Thr	Ser	Asn	His	Thr	Ile	Phe	Pro	Trp	Thr			
			660					665					670					
Leu	Pro	Pro	Ala	Met	Leu	Pro	Glu	Asn	Gly	Thr	Cys	Ala	Ala	Pro	Pro			
		675					680					685						
Glu	Arg	Ile	Ile	Ser	Leu	Ile	Glu	Phe	Pro	Ala	Asn	Asp	Ile	Thr	Ser			
	690					695					700							
Gly	Ile	Thr	Ser	Arg	Phe	Gly	Asn	His	Leu	Ser	Trp	Gln	Thr	His	Leu			
705					710					715				720				
Gly	Pro	Thr	Val	Asn	Ile	Leu	Glu	Gly	Leu	Arg	Leu	Gln	Leu	Glu	Gln			
				725					730					735				
Val	Ser	Asp	Pro	Ala	Thr	Gly	Glu	Asp	Lys	Trp	Arg	Ile	Thr	His	Ile			
			740					745					750					
Gly	Asn	Thr	Gln	Leu	Gly	Arg	His	Glu	Thr	Val	Phe	Phe	His	Ala	Glu			
		755					760					765						
His	Val	Arg	His	Leu	Lys	Asp	Glu	Val	Phe	Ser	Cys	Arg	Arg	Arg	Arg			
	770					775					780							
Asp	Ala	Val	Glu	Ile	Glu	Leu	Leu	Val	Asp	Lys	Pro	Ser	Asp	Thr	Asn			
785					790					795				800				
Asn	Asn	Asn	Thr	Leu	Ala	Ser	Ser	Asp	Asp	Asp	Val	Val	Val	Asp	Ala			

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Lys	Ala	Glu	Glu	805	Gln	Asp	Gly	Met	Leu	810	Ala	Asp	Asp	Asp	Gly	815	Asp	Thr
			820	Thr	Leu	Ser	Ser	825	Asn	Ser	Leu	Phe	Gln	Ser	830	Leu	Leu	
Arg	Ala	Val	Ser	835	Ser	Val	Phe	840	Glu	Pro	Val	Tyr	Thr	845	Ala	Ile	Pro	Glu
	850						855						860					
Ser	Asp	Pro	Ser	Ala	Gly	Thr	Ala	Lys	Val	Tyr	Ser	Phe	Asp	Ala	Tyr			
865					870					875					880			
Thr	Ser	Thr	Gly	Pro	Gly	Ala	Tyr	Pro	Met	Pro	Ser	Ile	Ser	Asp	Thr			
				885					890						895			
Pro	Ile	Pro	Gly	Asn	Pro	Phe	Tyr	Asn	Phe	Arg	Asn	Pro	Ala	Ser	Asn			
			900					905						910				
Phe	Pro	Trp	Ser	Thr	Val	Phe	Leu	Ala	Gly	Gln	Ala	Cys	Glu	Gly	Pro			
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Leu	Pro	Ala	Ser	Ala	Pro	Arg	Glu	His	Gln	Val	Ile	Val	Met	Leu	Arg			
	930					935						940						
Gly	Gly	Cys	Ser	Phe	Ser	Arg	Lys	Leu	Asp	Asn	Ile	Pro	Ser	Phe	Ser			
945					950					955					960			
Pro	His	Asp	Arg	Ala	Leu	Gln	Leu	Val	Val	Val	Leu	Asp	Glu	Pro	Pro			
				965					970					975				
Pro	Pro	Pro	Pro	Pro	Pro	Pro	Ala	Asn	Asp	Arg	Arg	Asp	Val	Thr	Arg			
			980					985						990				
Pro	Leu	Leu	Asp	Thr	Glu	Gln	Thr	Pro	Lys	Gly	Met	Lys	Arg	Leu				
	995					1000					1005							
His	Gly	Ile	Pro	Met	Val	Leu	Val	Arg	Ala	Ala	Arg	Gly	Asp	Tyr	Glu			
	1010				1015					1020								
Leu	Phe	Gly	His	Ala	Ile	Gly	Val	Gly	Met	Arg	Arg	Lys	Tyr	Arg	Val			
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Glu	Ser	Gln	Gly	Leu	Val	Val	Glu	Asn	Ala	Val	Val	Leu						
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<210> 80
 <211> 45
 <212> PRT
 <213> Trichoderma reesei

<400> 80
 Met Met Pro Arg His His Ser Ser Gly Phe Ser Asn Gly Tyr Pro Arg
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 Ala Asp Thr Phe Glu Ile Ser Pro His Arg Phe Gln Pro Arg Ala Thr
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 Leu Pro Pro His Arg Lys Arg Lys Arg Thr Ala Ile Arg
 35 40 45

<210> 81
 <211> 16
 <212> PRT
 <213> Trichoderma reesei

<400> 81
 Val Gly Ile Ala Val Val Val Ile Leu Val Leu Val Leu Trp Phe Gly
 1 5 10 15

<210> 82
 <211> 407
 <212> PRT
 <213> Trichoderma reesei

<400> 82
 Gln Pro Arg Ser Val Ala Ser Leu Ile Ser Leu Gly Ile Leu Ser Gly
 1 5 10 15
 Tyr Asp Asp Leu Lys Leu Glu Thr Val Arg Tyr Tyr Asp Leu Ser Asn
 20 25 30
 Val Gln Gly Thr Ala Arg Gly Trp Glu Arg Glu Glu Arg Ile Leu Leu

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      35      40      45
Cys Val Pro Leu Arg Asp Ala Glu Gln His Leu Pro Met Phe Phe Ser
  50      55      60
His Leu Lys Asn Phe Thr Tyr Pro His Asn Leu Ile Asp Leu Ala Phe
  65      70      75      80
Leu Val Ser Asp Ser Lys Asp His Thr Leu Glu Ser Leu Thr Glu His
      85      90      95
Leu Glu Ala Ile Gln Ala Asp Pro Asp Pro Lys Gln Pro Tyr Gly Glu
      100      105      110
Ile Ser Ile Ile Glu Lys Asp Phe Gly Gln Lys Val Asn Gln Asp Val
      115      120      125
Glu Ser Arg His Gly Phe Ala Ala Gln Ala Ser Arg Arg Lys Leu Met
      130      135      140
Ala Gln Ala Arg Asn Trp Leu Leu Ser Ala Ala Leu Arg Pro Tyr His
      145      150      155      160
Ser Trp Val Tyr Trp Arg Asp Val Asp Val Glu Thr Ala Pro Phe Thr
      165      170      175
Ile Leu Glu Asp Leu Met Arg His Asn Lys Asp Val Ile Val Pro Asn
      180      185      190
Val Trp Arg Pro Leu Pro Asp Trp Leu Gly Gly Glu Gln Pro Tyr Asp
      195      200      205
Leu Asn Ser Trp Gln Glu Ser Glu Thr Ala Leu Ala Leu Ala Asp Thr
      210      215      220
Leu Asp Glu Asp Ala Val Ile Val Glu Gly Tyr Ala Glu Tyr Ala Thr
      225      230      235      240
Trp Arg Pro His Leu Ala Tyr Leu Arg Asp Pro Tyr Gly Asp Pro Asp
      245      250      255
Met Glu Met Glu Ile Asp Gly Val Gly Gly Val Ser Ile Leu Ala Lys
      260      265      270
Ala Lys Val Phe Arg Ala Gly Val His Phe Pro Ala Phe Ser Phe Glu
      275      280      285
Lys His Ala Glu Thr Glu Gly Phe Gly Lys Met Ala Lys Arg Met His
      290      295      300
Phe Ser Val Val Gly Leu Pro His Tyr Thr Ile Trp His Leu Tyr Glu
      305      310      315      320
Pro Ser Val Asp Asp Ile Lys His Met Glu Glu Met Glu Arg Glu Arg
      325      330      335
Ile Ala Arg Glu Lys Glu Glu Glu Glu Arg Lys Lys Lys Glu Ala Gln
      340      345      350
Ile Lys Glu Glu Phe Gly Asp Ala Asn Ser Gln Trp Glu Gln Asp Lys
      355      360      365
Gln Gln Met Gln Asp Leu Lys Leu Gln Asp Arg Gly Gly Asp Lys Glu
      370      375      380
Ala Ala Ala Ala Gly Val Asn Gln Gly Ala Ala Ala Lys Ala Ala Gly
      385      390      395      400
Ala Met Glu Gly Gln Lys Asn
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<210> 83
 <211> 31
 <212> PRT
 <213> Trichoderma reesei

<400> 83
 Met Leu Leu Pro Lys Gly Gly Leu Asp Trp Arg Ser Ala Arg Ala Gln
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 Ile Pro Pro Thr Arg Ala Leu Trp Asn Ala Val Thr Arg Thr Arg
 20 25 30

<210> 84
 <211> 15
 <212> PRT
 <213> Trichoderma reesei

<400> 84
 Phe Ile Leu Leu Val Gly Ile Thr Gly Leu Ile Leu Leu Leu Trp

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1	5	10	15
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<210> 85
 <211> 358
 <212> PRT
 <213> Trichoderma reesei

<400> 85
 Arg Gly Val Ser Thr Ser Ala Ser Glu Met Gln Ser Phe Tyr Cys Trp
 1 5 10 15
 Gly Pro Ala Lys Pro Pro Met Glu Met Ser Pro Asn Glu His Asn Arg
 20 25 30
 Trp Asn Gly His Leu Gln Thr Pro Val Ile Phe Asn His His Ala Pro
 35 40 45
 Val Glu Val Asn Ser Ser Thr Ile Glu His Val Asp Leu Asn Pro Ile
 50 55 60
 Asn Ser Thr Lys Gln Ala Val Thr Lys Glu Glu Arg Ile Leu Ile Leu
 65 70 75 80
 Thr Pro Leu Lys Asp Ala Ala Pro Tyr Leu Ser Lys Tyr Phe Glu Leu
 85 90 95
 Leu Ala Glu Leu Thr Tyr Pro His Arg Leu Ile Asp Leu Ala Phe Leu
 100 105 110
 Val Ser Asp Ser Thr Asp Asp Thr Leu Ala Val Leu Ala Ser Glu Leu
 115 120 125
 Asp Arg Ile Gln Lys Arg Pro Asp Gln Ile Pro Phe His Ser Ala Thr
 130 135 140
 Val Ile Glu Lys Asp Phe Gly Phe Lys Leu Ser Gln Asn Val Glu Glu
 145 150 155 160
 Arg His Ser Phe Glu Ala Gln Gly Pro Arg Arg Lys Ala Met Gly Arg
 165 170 175
 Ala Arg Asn Tyr Leu Leu Tyr Thr Ala Leu Lys Pro Glu His Ser Trp
 180 185 190
 Val Tyr Trp Arg Asp Val Asp Ile Val Asp Ser Pro Thr Gly Ile Leu
 195 200 205
 Glu Asp Phe Ile Ala His Asp Arg Asp Ile Leu Val Pro Asn Ile Trp
 210 215 220
 Phe His Arg Tyr Arg Asp Gly Val Asp Ile Glu Gly Arg Phe Asp Tyr
 225 230 235 240
 Asn Ser Trp Val Glu Ser Asp Lys Gly Arg Lys Leu Ala Asn Ser Leu
 245 250 255
 Asp Lys Asp Val Val Leu Ala Glu Gly Tyr Lys Gln Tyr Asp Thr Gly
 260 265 270
 Arg Thr Tyr Met Ala Lys Met Gly Asp Trp Arg Glu Asn Lys Asp Val
 275 280 285
 Glu Leu Glu Leu Asp Gly Ile Gly Gly Val Asn Ile Leu Val Lys Ala
 290 295 300
 Asp Val His Arg Ser Gly Ile Asn Phe Pro Cys Tyr Ala Phe Glu Asn
 305 310 315 320
 Gln Ala Glu Thr Glu Gly Phe Ala Lys Met Ala Lys Arg Ala Gly Tyr
 325 330 335
 Glu Val Tyr Gly Leu Pro Asn Tyr Val Val Trp His Ile Asp Thr Glu
 340 345 350
 Glu Lys Gly Gly Asn Ala
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<210> 86
 <211> 17
 <212> PRT
 <213> Trichoderma reesei

<400> 86
 Met Ala Arg Pro Met Gly Ser Val Arg Leu Lys Lys Ala Asn Pro Ser
 1 5 10 15
 Thr

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<210> 87
 <211> 16
 <212> PRT
 <213> Trichoderma reesei

<400> 87
 Leu Ile Leu Gly Ala Val Leu Cys Ile Phe Ile Ile Ile Phe Leu Val
 1 5 10 15

<210> 88
 <211> 339
 <212> PRT
 <213> Trichoderma reesei

<400> 88
 Ser Pro Ser Ser Pro Ala Ser Ala Ser Arg Leu Ser Ile Val Ser Ala
 1 5 10 15
 Gln His His Leu Ser Pro Pro Thr Ser Pro Tyr Gln Ser Pro Arg Ser
 20 25 30
 Gly Ala Val Gln Gly Pro Pro Pro Val Thr Arg Tyr Asn Leu Asn Lys
 35 40 45
 Val Thr Val Thr Ser Asp Pro Val Arg Asn Gln Glu His Ile Leu Ile
 50 55 60
 Leu Thr Pro Met Ala Arg Phe Tyr Gln Glu Tyr Trp Asp Asn Leu Leu
 65 70 75 80
 Arg Leu Asn Tyr Pro His Glu Leu Ile Thr Leu Gly Phe Ile Leu Pro
 85 90 95
 Lys Thr Lys Glu Gly Asn Gln Ala Thr Ser Met Leu Gln Lys Gln Ile
 100 105 110
 Gln Lys Thr Gln Asn Tyr Gly Pro Glu Lys Asp Arg Phe Lys Ser Ile
 115 120 125
 Ile Ile Leu Arg Gln Asp Phe Asp Pro Ala Val Val Ser Gln Asp Glu
 130 135 140
 Ser Glu Arg His Lys Leu Ala Asn Gln Lys Ala Arg Arg Glu Val Met
 145 150 155 160
 Ala Lys Ala Arg Asn Ser Leu Leu Phe Thr Thr Leu Gly Pro Ser Thr
 165 170 175
 Ser Trp Val Leu Trp Leu Asp Ala Asp Ile Thr Glu Thr Ala Pro Thr
 180 185 190
 Leu Ile Gln Asp Leu Ala Ser His Asp Lys Pro Ile Ile Val Ala Asn
 195 200 205
 Cys Phe Gln Lys Tyr Tyr Asp Pro Glu Ser Lys Lys Met Ala Glu Arg
 210 215 220
 Pro Tyr Asp Phe Asn Ser Trp Gln Asp Ser Glu Thr Ala Leu Lys Met
 225 230 235 240
 Ala Glu Gln Met Gly Pro Asp Asp Ile Leu Leu Glu Gly Tyr Ala Glu
 245 250 255
 Met Ala Thr Tyr Arg Thr Leu Leu Ala Tyr Met Ser Thr Pro Gly Gly
 260 265 270
 Ser Lys Asp Leu Val Val Pro Leu Asp Gly Val Gly Gly Thr Ala Leu
 275 280 285
 Leu Val Lys Ala Asp Val His Arg Asp Gly Ala Met Phe Pro Pro Phe
 290 295 300
 Ala Phe Tyr His Leu Ile Glu Ser Glu Gly Phe Ala Lys Met Ala Lys
 305 310 315 320
 Arg Leu Gly Trp Gln Pro Tyr Gly Leu Pro Asn Tyr Lys Val Tyr His
 325 330 335
 Tyr Asn Glu

<210> 89
 <211> 33
 <212> PRT
 <213> Trichoderma reesei

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<400> 89

Met His Phe Ala Tyr Pro Ser Arg Lys Ser Ser Asn Pro Pro Pro Phe
 1 5 10 15
 Arg Pro Arg Ser Thr Arg Leu Pro Gly Leu Arg Arg Ser Arg Ile Lys
 20 25 30
 Thr

<210> 90

<211> 15

<212> PRT

<213> Trichoderma reesei

<400> 90

Ile Gly Ile Val Leu Phe Leu Val Leu Ala Thr Leu Trp Phe Phe
 1 5 10 15

<210> 91

<211> 262

<212> PRT

<213> Trichoderma reesei

<400> 91

Ser Asn Pro Arg Val Pro Arg Pro Asp Pro Glu Arg Val Pro Ser Gly
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 Arg Pro Pro Val Val Leu Val Thr Val Ile Asp Pro Thr Gln Tyr Pro
 20 25 30
 Asn Ala Tyr Leu Lys Thr Ile Lys Glu Asn Arg Glu Gln Tyr Ala Ala
 35 40 45
 Lys His Gly Tyr Glu Ala Phe Ile Val Lys Ala Tyr Asp Tyr Asp Thr
 50 55 60
 Gln Gly Ala Pro Gln Ser Trp Ser Lys Leu Met Ala Met Arg His Ala
 65 70 75 80
 Leu Thr Lys Phe Pro Glu Cys Arg Phe Val Trp Tyr Leu Asp Gln Asp
 85 90 95
 Ala Tyr Ile Met Asp Met Ser Lys Ser Leu Glu Glu Gln Leu Leu Asn
 100 105 110
 Arg Gln Lys Leu Glu Ser Leu Met Ile Lys Asn Tyr Pro Val Val Pro
 115 120 125
 Pro Asp Ser Ile Ile Lys Thr Phe Ser His Leu Arg Pro Asp Glu Val
 130 135 140
 Asp Leu Ile Val Ser Gln Asp Ser Ser Gly Leu Val Ala Gly Ser Val
 145 150 155 160
 Val Val Arg Asn Ser Gln Trp Ser Lys Phe Leu Leu Glu Thr Trp Met
 165 170 175
 Asp Pro Leu Tyr Arg Ser Tyr Asn Phe Gln Lys Ala Glu Arg His Ala
 180 185 190
 Leu Glu His Ile Val Gln Trp His Pro Thr Ile Leu Ser Lys Leu Ala
 195 200 205
 Leu Val Pro Gln Arg Thr Leu Gly Pro Tyr Thr Arg Thr Asp Gln Gly
 210 215 220
 Asp Ala Tyr Gln Asp Gly Asp Phe Val Val Met Phe Thr Gly Cys Thr
 225 230 235 240
 Lys Ser Gly Glu Gln Ser Cys Glu Thr Val Ser Ala Ser Tyr Tyr Gln
 245 250 255
 Lys Trp Ser Ser Ser Leu
 260

<210> 92

<211> 119

<212> PRT

<213> Trichoderma reesei

<400> 92

Met Ser Leu Ser Arg Ser Pro Ser Pro Val Pro Gly Gly Gly Trp Ser

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1				5					10					15			
Ser	Pro	Gly	Leu	Asn	Ile	Asn	Ser	Gly	Arg	Ser	Ser	Pro	Ser	Asn	Ala		
			20					25					30				
Ala	Gly	Ser	Ser	Val	Ser	Trp	Glu	Ser	Ala	Lys	Met	Arg	Lys	Gln	Gly		
		35					40					45					
Ala	Asn	Gly	Tyr	Pro	Ser	Phe	Ser	Thr	Gln	Asn	Gln	Gly	Phe	Phe	Thr		
	50					55				60							
Arg	His	Met	Arg	Arg	Ile	Ser	Ser	Ser	Leu	Pro	Arg	Phe	Ala	Ala	Gly		
65					70				75						80		
Pro	Gly	Asn	Thr	Tyr	Ala	Glu	Arg	Glu	Lys	Tyr	Glu	Arg	Gly	Gly	His		
			85						90					95			
Ser	Pro	His	Ala	Gly	Gly	Gly	Arg	Leu	Arg	Ala	Phe	Leu	Ala	Arg	Ile		
			100					105					110				
Gly	Arg	Arg	Leu	Lys	Trp	Arg											
			115														

<210> 93
 <211> 16
 <212> PRT
 <213> Trichoderma reesei

<400> 93																	
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<210> 94
 <211> 324
 <212> PRT
 <213> Trichoderma reesei

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Gly	Gly	Gly	Gly	Glu	Lys	Phe	Val	Ile	Ile	Leu	Gly	Ala	Asn	Val	Gly		
			20					25				30					
Gly	Gly	Val	Met	Glu	Trp	Lys	Gly	Ala	Arg	Glu	Trp	Ala	Ile	Glu	Arg		
		35					40					45					
Asp	Ser	Val	Arg	Asn	Lys	Arg	Lys	Tyr	Ala	Thr	Arg	Trp	Gly	Tyr	Asp		
	50				55					60							
Leu	Glu	Ile	Val	Asp	Met	Lys	Thr	Lys	Lys	Arg	Tyr	Ala	His	Glu	Trp		
65				70				75						80			
Arg	Glu	Ser	Trp	Glu	Lys	Val	Asp	Phe	Ile	Arg	Ala	Ala	Met	Arg	Lys		
			85					90						95			
Tyr	Pro	Lys	Ala	Glu	Trp	Phe	Trp	Trp	Leu	Asp	Leu	Asn	Thr	Tyr	Val		
			100				105					110					
Met	Glu	Pro	Ser	Tyr	Ser	Leu	Gln	Arg	His	Leu	Phe	Asn	His	Leu	Asp		
		115				120						125					
Arg	His	Val	Tyr	Arg	Asp	Ile	Asn	Val	Phe	Asn	Pro	Leu	Asn	Ile	Thr		
	130				135					140							
His	Pro	Pro	Thr	Glu	Glu	Tyr	Leu	Asp	Ala	Glu	Ala	Arg	Ser	Pro	Val		
145				150					155					160			
Gly	Asp	Gly	Asn	Ile	Asn	Ser	Val	Asn	Leu	Met	Leu	Thr	Gln	Asp	Cys		
			165					170						175			
Ser	Gly	Phe	Asn	Leu	Gly	Ser	Phe	Phe	Ile	Arg	Arg	Ser	Ala	Trp	Thr		
		180					185						190				
Glu	Gln	Leu	Asp	Ile	Trp	Trp	Asp	Pro	Val	Leu	Tyr	Glu	Gln	Lys			
		195				200					205						
His	Met	Glu	Trp	Glu	His	Lys	Glu	Gln	Asp	Ala	Leu	Glu	Gln	Leu	Tyr		
	210				215					220							
Arg	Thr	Gln	Pro	Trp	Ile	Arg	Gln	His	Thr	Gly	Phe	Leu	Pro	Gln	Arg		
225				230					235					240			
Leu	Ile	Asn	Ser	Phe	Pro	Pro	Ala	Ala	Cys	Ala	Asp	Glu	Ser	Gly	Leu		
			245						250					255			
Asn	Asn	Thr	Arg	Ile	His	Tyr	Asn	Glu	Lys	Asp	Arg	Asp	Phe	Val	Val		
		260					265						270				
Asn	Met	Ala	Gly	Cys	Glu	Trp	Gly	Arg	Asp	Cys	Trp	Gly	Glu	Met	Tyr		

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His	Tyr	275	Arg	Glu	Phe	Ser	Tyr	280	Trp	Leu	Asn	Arg	Asn	285	Pro	Trp	Glu	Leu
	290						295						300					
Phe	Lys	Glu	Glu	Ile	Val	Ala	Val	Ile	Trp	Tyr	Lys	Leu	Thr	Gly	Gln			
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Arg	Val	Lys	Leu															

<210> 95
 <211> 863
 <212> PRT
 <213> Homo sapiens

<400> 95

Met	Arg	Phe	Arg	Ile	Tyr	Lys	Arg	Lys	Val	Leu	Ile	Leu	Thr	Leu	Val			
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Val	Ala	Ala	Cys	Gly	Phe	Val	Leu	Trp	Ser	Ser	Asn	Gly	Arg	Gln	Arg			
			20					25					30					
Lys	Asn	Glu	Ala	Leu	Ala	Pro	Pro	Leu	Leu	Asp	Ala	Glu	Pro	Ala	Arg			
		35					40					45						
Gly	Ala	Gly	Gly	Arg	Gly	Gly	Asp	His	Pro	Ser	Val	Ala	Val	Gly	Ile			
	50				55						60							
Arg	Arg	Val	Ser	Asn	Val	Ser	Ala	Ala	Ser	Leu	Val	Pro	Ala	Val	Pro			
65				70						75					80			
Gln	Pro	Glu	Ala	Asp	Asn	Leu	Thr	Leu	Arg	Tyr	Arg	Ser	Leu	Val	Tyr			
				85					90					95				
Gln	Leu	Asn	Phe	Asp	Gln	Thr	Leu	Arg	Asn	Val	Asp	Lys	Ala	Gly	Thr			
			100					105					110					
Trp	Ala	Pro	Arg	Glu	Leu	Val	Leu	Val	Val	Gln	Val	His	Asn	Arg	Pro			
		115					120					125						
Glu	Tyr	Leu	Arg	Leu	Leu	Leu	Asp	Ser	Leu	Arg	Lys	Ala	Gln	Gly	Ile			
	130					135					140							
Asp	Asn	Val	Leu	Val	Ile	Phe	Ser	His	Asp	Phe	Trp	Ser	Thr	Glu	Ile			
145					150					155					160			
Asn	Gln	Leu	Ile	Ala	Gly	Val	Asn	Phe	Cys	Pro	Val	Leu	Gln	Val	Phe			
				165					170					175				
Phe	Pro	Phe	Ser	Ile	Gln	Leu	Tyr	Pro	Asn	Glu	Phe	Pro	Gly	Ser	Asp			
			180					185					190					
Pro	Arg	Asp	Cys	Pro	Arg	Asp	Leu	Pro	Lys	Asn	Ala	Ala	Leu	Lys	Leu			
		195					200					205						
Gly	Cys	Ile	Asn	Ala	Glu	Tyr	Pro	Asp	Ser	Phe	Gly	His	Tyr	Arg	Glu			
	210					215					220							
Ala	Lys	Phe	Ser	Gln	Thr	Lys	His	His	Trp	Trp	Trp	Lys	Leu	His	Phe			
225					230					235					240			
Val	Trp	Glu	Arg	Val	Lys	Ile	Leu	Arg	Asp	Tyr	Ala	Gly	Leu	Ile	Leu			
				245					250					255				
Phe	Leu	Glu	Glu	Asp	His	Tyr	Leu	Ala	Pro	Asp	Phe	Tyr	His	Val	Phe			
			260					265					270					
Lys	Lys	Met	Trp	Lys	Leu	Lys	Gln	Gln	Glu	Cys	Pro	Glu	Cys	Asp	Val			
		275					280					285						
Leu	Ser	Leu	Gly	Thr	Tyr	Ser	Ala	Ser	Arg	Ser	Phe	Tyr	Gly	Met	Ala			
	290					295					300							
Asp	Lys	Val	Asp	Val	Lys	Thr	Trp	Lys	Ser	Thr	Glu	His	Asn	Met	Gly			
305					310					315					320			
Leu	Ala	Leu	Thr	Arg	Asn	Ala	Tyr	Gln	Lys	Leu	Ile	Glu	Cys	Thr	Asp			
				325					330					335				
Thr	Phe	Cys	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Thr	Leu	Gln	Tyr			
			340					345					350					
Leu	Thr	Val	Ser	Cys	Leu	Pro	Lys	Phe	Trp	Lys	Val	Leu	Val	Pro	Gln			
		355					360					365						
Ile	Pro	Arg	Ile	Phe	His	Ala	Gly	Asp	Cys	Gly	Met	His	His	Lys	Lys			
	370					375					380							
Thr	Cys	Arg	Pro	Ser	Thr	Gln	Ser	Ala	Gln	Ile	Glu	Ser	Leu	Leu	Asn			
385					390					395					400			
Asn	Asn	Lys	Gln	Tyr	Met	Phe	Pro	Glu	Thr	Leu	Thr	Ile	Ser	Glu	Lys			
			405						410					415				
Phe	Thr	Val	Val	Ala	Ile	Ser	Pro	Pro	Arg	Lys	Asn	Gly	Gly	Trp	Gly			

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Asp	Ile	Arg	420	Asp	His	Glu	Leu	Cys	425	Lys	Ser	Tyr	Arg	Arg	430	Leu	Gln	Thr
Arg	Pro	Ala	435	Pro	Gly	Arg	Pro	Pro	440	Ser	Val	Ser	Ala	Leu	445	Asp	Gly	Asp
Pro	Ala	Ser	450	Leu	Thr	Arg	Glu	Val	455	Ile	Arg	Leu	Ala	Gln	460	Asp	Ala	Glu
Val	Glu	Leu	465	Glu	Arg	Gln	Arg	Gly	470	Leu	Leu	Gln	Gln	Ile	475	Gly	Asp	Ala
Leu	Ser	Ser	485	Gln	Arg	Gly	Arg	Val	490	Pro	Thr	Ala	Ala	Pro	495	Pro	Ala	Gln
Pro	Arg	Val	500	Pro	Val	Thr	Pro	Ala	505	Pro	Ala	Val	Ile	Pro	510	Ile	Leu	Val
Ile	Ala	Cys	515	Asp	Arg	Ser	Thr	Val	520	Arg	Arg	Cys	Leu	Asp	525	Lys	Leu	Leu
His	Tyr	Arg	530	Pro	Ser	Ala	Glu	Leu	535	Phe	Pro	Ile	Ile	Val	540	Ser	Gln	Asp
Cys	Gly	His	545	Glu	Glu	Thr	Ala	Gln	550	Ala	Ile	Ala	Ser	Tyr	555	Gly	Ser	Ala
Val	Thr	His	565	Ile	Arg	Gln	Pro	Asp	570	Leu	Ser	Ser	Ile	Ala	575	Val	Pro	Pro
Asp	His	Arg	580	Lys	Phe	Gln	Gly	Tyr	585	Tyr	Lys	Ile	Ala	Arg	590	His	Tyr	Arg
Trp	Ala	Leu	595	Gly	Gln	Val	Phe	Arg	600	Gln	Phe	Arg	Phe	Pro	605	Ala	Ala	Val
Val	Val	Glu	610	Asp	Asp	Leu	Glu	Val	615	Ala	Pro	Asp	Phe	Phe	620	Glu	Tyr	Phe
Arg	Ala	Thr	625	Tyr	Pro	Leu	Leu	Lys	630	Ala	Asp	Pro	Ser	Leu	635	Trp	Cys	Val
Ser	Ala	Trp	645	Asn	Asp	Asn	Gly	Lys	650	Gln	Met	Val	Asp	Ala	655	Ser	Arg	Arg
Pro	Glu	Leu	660	Leu	Tyr	Arg	Thr	Asp	665	Phe	Phe	Pro	Gly	Leu	670	Gly	Trp	Leu
Leu	Leu	Ala	675	Glu	Leu	Trp	Ala	Glu	680	Leu	Glu	Pro	Lys	Trp	685	Pro	Lys	Ala
Phe	Trp	Asp	690	Asp	Trp	Met	Arg	Arg	695	Pro	Glu	Gln	Arg	Gln	700	Gly	Arg	Ala
Cys	Ile	Arg	705	Pro	Glu	Ile	Ser	Arg	710	Thr	Met	Thr	Phe	Gly	715	Arg	Lys	Gly
Val	Ser	His	725	Gly	Gln	Phe	Phe	Asp	730	Gln	His	Leu	Lys	Phe	735	Ile	Lys	Leu
Asn	Gln	Gln	740	Phe	Val	His	Phe	Thr	745	Gln	Leu	Asp	Leu	Ser	750	Tyr	Leu	Gln
Arg	Glu	Ala	755	Tyr	Asp	Arg	Asp	Phe	760	Leu	Ala	Arg	Val	Tyr	765	Gly	Ala	Pro
Gln	Leu	Gln	770	Val	Glu	Lys	Val	Arg	775	Thr	Asn	Asp	Arg	Lys	780	Glu	Leu	Gly
Glu	Val	Arg	785	Val	Gln	Tyr	Thr	Gly	790	Arg	Asp	Ser	Phe	Lys	795	Ala	Phe	Ala
Lys	Ala	Leu	805	Gly	Val	Met	Asp	Asp	810	Leu	Lys	Ser	Gly	Val	815	Pro	Arg	Ala
Gly	Tyr	Arg	820	Gly	Ile	Val	Thr	Phe	825	Gln	Phe	Arg	Gly	Arg	830	Arg	Val	His
Leu	Ala	Pro	835	Pro	Pro	Thr	Trp	Glu	840	Gly	Tyr	Asp	Pro	Ser	845	Trp	Asn	Asn
			850						855						860			

<210> 96
 <211> 2592
 <212> DNA
 <213> Homo sapiens

<400> 96
 atgcgcttcc gaatctacaa gcggaagggtc ctcatctctga cccttgctgt ggccgcttgc 60
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 ctcttgagac ccgaaccggc cagaggcgca ggtggcaggg gaggggatca cccctcgggtc 180
 gctgtcggca tccgccgcgt cagcaatgtg tccgccgcct ctctggtccc ggccggttccg 240
 cagcctgagg cagacaacct cagcgtgcgc taccgatcac tcgtgtatca acttaacttc 300

atgagcgtcac	tcatcaaaac	tgcgcgtgag	atgccaacg	gcccacatg	gctgtccaga	60
tatgttcata	cggaaatacga	ctgggttcgc	tacatgagac	aagtcaacca	gttcgtccac	120
gtgccttata	cggaaatacga	ctgggttcgc	tacatgagac	aagtcaacca	gttcgtccac	180
ggagagccgag	actaaccccaa	gatygaagcg	ggacagagcg	ccctggtgta	tcccgcgcc	240
catgtgtaca	tctacacagc	gctctacata	ctgacatctg	aggggccacg	catccccgtg	300
cagtcagcag	tctttggccg	gctctacatg	gctacatctg	cgggtcgtcat	gacatgtctac	360
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aggccggggt	tctctatcac	gtctaatcac	tttcaacgca	tcttctccct	cgccttttat	840
ctcgcgcgt	ggtctgaagat	tagggaaacg	accgtatctg	ggatgatccc	ctatgttcat	900
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gcttccccca	atcttttctg	gtgttttctg	gtcgttggta	ggtgacgggt	ggtgacgggt	3060
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eolf-seql

<210> 98
 <211> 420
 <212> PRT
 <213> Trichoderma reesei

<400> 98
 Met Ala Ser Leu Ile Lys Thr Ala Val Asp Ile Ala Asn Gly Arg His
 1 5 10 15
 Ala Leu Ser Arg Tyr Val Ile Phe Gly Leu Trp Leu Ala Asp Ala Val
 20 25 30
 Leu Cys Gly Leu Ile Ile Trp Lys Val Pro Tyr Thr Glu Ile Asp Trp
 35 40 45
 Val Ala Tyr Met Glu Gln Val Thr Gln Phe Val His Gly Glu Arg Asp
 50 55 60
 Tyr Pro Lys Met Glu Gly Gly Thr Gly Pro Leu Val Tyr Pro Ala Ala
 65 70 75 80
 His Val Tyr Ile Tyr Thr Gly Leu Tyr Tyr Leu Thr Asn Lys Gly Thr
 85 90 95
 Asp Ile Leu Leu Ala Gln Gln Leu Phe Ala Val Leu Tyr Met Ala Thr
 100 105 110
 Leu Ala Val Val Met Thr Cys Tyr Ser Lys Ala Lys Val Pro Pro Tyr
 115 120 125
 Ile Phe Pro Leu Leu Ile Leu Ser Lys Arg Leu His Ser Val Phe Val
 130 135 140
 Leu Arg Cys Phe Asn Asp Cys Phe Ala Ala Phe Phe Leu Trp Leu Cys
 145 150 155 160
 Ile Phe Phe Phe Gln Arg Arg Glu Trp Thr Ile Gly Ala Leu Ala Tyr
 165 170 175
 Ser Ile Gly Leu Gly Val Lys Met Ser Leu Leu Leu Val Leu Pro Ala
 180 185 190
 Val Val Ile Val Leu Tyr Leu Gly Arg Gly Phe Lys Gly Ala Leu Arg
 195 200 205
 Leu Leu Trp Leu Met Val Gln Val Gln Leu Leu Leu Ala Ile Pro Phe
 210 215 220
 Ile Thr Thr Asn Trp Arg Gly Tyr Leu Gly Arg Ala Phe Glu Leu Ser
 225 230 235 240
 Arg Gln Phe Lys Phe Glu Trp Thr Val Asn Trp Arg Met Leu Gly Glu
 245 250 255
 Asp Leu Phe Leu Ser Arg Gly Phe Ser Ile Thr Leu Leu Ala Phe His
 260 265 270
 Ala Ile Phe Leu Leu Ala Phe Ile Leu Gly Arg Trp Leu Lys Ile Arg
 275 280 285
 Glu Arg Thr Val Leu Gly Met Ile Pro Tyr Val Ile Arg Phe Arg Ser
 290 295 300
 Pro Phe Thr Glu Gln Glu Glu Arg Ala Ile Ser Asn Arg Val Val Thr
 305 310 315 320
 Pro Gly Tyr Val Met Ser Thr Ile Leu Ser Ala Asn Val Val Gly Leu
 325 330 335
 Leu Phe Ala Arg Ser Leu His Tyr Gln Phe Tyr Ala Tyr Leu Ala Trp
 340 345 350
 Ala Thr Pro Tyr Leu Leu Trp Thr Ala Cys Pro Asn Leu Leu Val Val
 355 360 365
 Ala Pro Leu Trp Ala Ala Gln Glu Trp Ala Trp Asn Val Phe Pro Ser
 370 375 380
 Thr Pro Leu Ser Ser Ser Val Val Val Ser Val Leu Ala Val Thr Val
 385 390 395 400
 Ala Met Ala Phe Ala Gly Ser Asn Pro Gln Pro Arg Glu Thr Ser Lys
 405 410 415
 Pro Lys Gln His
 420

<210> 99
 <211> 21
 <212> DNA
 <213> Artificial Sequence

eof-seq1

<220>
 <223> Synthesized Construct

<400> 99
 gcaaattggca ttctgacatc c 21

<210> 100
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthesized Construct

<400> 100
 gactggttcc aattgacaag c 21

<210> 101
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthesized Construct

<400> 101
 cagtgttacc ctaattccag ctaggatcat agccctccca cg 42

<210> 102
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthesized Construct

<400> 102
 cggaccaccg caagttcc 18

<210> 103
 <211> 54
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthesized Construct

<400> 103
 atgcggaatt ctgcatcatc atcatcatca tcgccagcgt aagaacgagg ccct 54

<210> 104
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
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<400> 104
 cttttctcta tccaactcta cc 22

<210> 105
 <211> 18
 <212> DNA
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<220>
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eolf-seq1

<400> 105
ggaacttgcg gtggtccg 18

<210> 106
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthesized Construct

<400> 106
ccgccggctc cagggaggtg ggggcagtgg aggtggcggc agtgggaggg tgcccaccgc 60
cgcccc 66

<210> 107
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthesized Construct

<400> 107
gcggtgggca cctcccact gccgccacct ccactgcccc cacctccctg gagccggcgg 60
taagac 66

<210> 108
<211> 65
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthesized Construct

<400> 108
aggtgggggc agtggaggtg gcggcagtgg cggcgggtgga agtgggaggg tgcccaccgc 60
cgccc 65

<210> 109
<211> 64
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthesized Construct

<400> 109
cgggtgggcac cctcccactt ccaccgccgc cactgccgcc acctccactg cccccacctc 60
cctg 64

<210> 110
<211> 65
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthesized Construct

<400> 110
gtttccgccg ggaggggttg cgccgctagg gttgccggtg ctctggagcc ggcggtaaga 60
cttgc 65

<210> 111
<211> 66
<212> DNA
<213> Artificial Sequence

eolf-seq1

<220>

<223> Synthesized Construct

<400> 111

gcaaccctcc cggcggaac ccgcctggca gcaccgggag ggtgcccacc gccgcccctc 60
ccgccc 66

<210> 112

<211> 70

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthesized Construct

<400> 112

ccgcctccag gaacagtggc gctggcggtg gccgtcgcgg cggagctctg gagccggcgg 60
taagacttgc 70

<210> 113

<211> 71

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthesized Construct

<400> 113

cgccactgtt cctggaggcg gtagcggccc caccagcggg aggggtgccc cgcgcgcccc 60
tccgcgcccag c 71

<210> 114

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthesized Construct

<400> 114

cattagcgag aagtttacgg 20

<210> 115

<211> 106

<212> PRT

<213> Trichoderma reesei

<400> 115

Met	Ala	Ser	Thr	Asn	Ala	Arg	Tyr	Val	Arg	Tyr	Leu	Leu	Ile	Ala	Phe
1				5					10					15	
Phe	Thr	Ile	Leu	Val	Phe	Tyr	Phe	Val	Ser	Asn	Ser	Lys	Tyr	Glu	Gly
			20					25					30		
Val	Asp	Leu	Asn	Lys	Gly	Thr	Phe	Thr	Ala	Pro	Asp	Ser	Thr	Lys	Thr
		35					40					45			
Thr	Pro	Lys	Pro	Pro	Ala	Thr	Gly	Asp	Ala	Lys	Asp	Phe	Pro	Leu	Ala
		50				55					60				
Leu	Thr	Pro	Asn	Asp	Pro	Gly	Phe	Asn	Asp	Leu	Val	Gly	Ile	Ala	Pro
65					70					75				80	
Gly	Pro	Arg	Met	Asn	Ala	Thr	Phe	Val	Thr	Leu	Ala	Arg	Asn	Ser	Asp
				85					90					95	
Val	Trp	Asp	Ile	Ala	Arg	Ser	Ile	Arg	Gln						
			100					105							

<210> 116

<211> 83

<212> PRT

<213> Trichoderma reesei

<400> 116

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Met Ala Ser Thr Asn Ala Arg Tyr Val Arg Tyr Leu Leu Ile Ala Phe
 1          5          10          15
Phe Thr Ile Leu Val Phe Tyr Phe Val Ser Asn Ser Lys Tyr Glu Gly
          20          25          30
Val Asp Leu Asn Lys Gly Thr Phe Thr Ala Pro Asp Ser Thr Lys Thr
          35          40          45
Thr Pro Lys Pro Pro Ala Thr Gly Asp Ala Lys Asp Phe Pro Leu Ala
          50          55          60
Leu Thr Pro Asn Asp Pro Gly Phe Asn Asp Leu Val Gly Ile Ala Pro
65          70          75          80
Gly Pro Arg

```

<210> 117

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized Construct

<400> 117

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Asp Tyr Lys Asp Asp Asp Asp Lys
 1          5

```

<210> 118

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized Construct

<400> 118

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Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 1          5          10          15

```

<210> 119

<211> 824

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized Construct

<400> 119

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Met Arg Phe Arg Ile Tyr Lys Arg Lys Val Leu Ile Leu Thr Leu Val
 1          5          10          15
Val Ala Ala Cys Gly Phe Val Leu Trp Ser Ser Asn Gly Arg Gln Arg
          20          25          30
Lys Asn Glu Ala Leu Ala Pro Pro Leu Leu Asp Ala Glu Pro Ala Arg
          35          40          45
Gly Ala Gly Gly Arg Gly Gly Asp His Pro Ser Val Ala Val Gly Ile
          50          55          60
Arg Arg Val Ser Asn Val Ser Ala Ala Ser Leu Val Pro Ala Val Pro
65          70          75          80
Gln Pro Glu Ala Asp Asn Leu Thr Leu Arg Tyr Arg Ser Leu Val Tyr
          85          90          95
Gln Leu Asn Phe Asp Gln Thr Leu Arg Asn Val Asp Lys Ala Gly Thr
          100          105          110
Trp Ala Pro Arg Glu Leu Val Leu Val Val Gln Val His Asn Arg Pro
          115          120          125

```

eo1f-seq1

Glu	Tyr	Leu	Arg	Leu	Leu	Leu	Asp	Ser	Leu	Arg	Lys	Ala	Gln	Gly	Ile
130						135					140				
Asp	Asn	Val	Leu	Val	Ile	Phe	Ser	His	Asp	Phe	Trp	Ser	Thr	Glu	Ile
145					150					155					160
Asn	Gln	Leu	Ile	Ala	Gly	Val	Asn	Phe	Cys	Pro	Val	Leu	Gln	Val	Phe
				165					170					175	
Phe	Pro	Phe	Ser	Ile	Gln	Leu	Tyr	Pro	Asn	Glu	Phe	Pro	Gly	Ser	Asp
			180					185					190		
Pro	Arg	Asp	Cys	Pro	Arg	Asp	Leu	Pro	Lys	Asn	Ala	Ala	Leu	Lys	Leu
		195					200					205			
Gly	Cys	Ile	Asn	Ala	Glu	Tyr	Pro	Asp	Ser	Phe	Gly	His	Tyr	Arg	Glu
	210					215					220				
Ala	Lys	Phe	Ser	Gln	Thr	Lys	His	His	Trp	Trp	Trp	Lys	Leu	His	Phe
225					230					235					240
Val	Trp	Glu	Arg	Val	Lys	Ile	Leu	Arg	Asp	Tyr	Ala	Gly	Leu	Ile	Leu
				245					250					255	
Phe	Leu	Glu	Glu	Asp	His	Tyr	Leu	Ala	Pro	Asp	Phe	Tyr	His	Val	Phe
			260					265					270		
Lys	Lys	Met	Trp	Lys	Leu	Lys	Gln	Gln	Glu	Cys	Pro	Glu	Cys	Asp	Val
		275					280					285			
Leu	Ser	Leu	Gly	Thr	Tyr	Ser	Ala	Ser	Arg	Ser	Phe	Tyr	Gly	Met	Ala
	290					295					300				
Asp	Lys	Val	Asp	Val	Lys	Thr	Trp	Lys	Ser	Thr	Glu	His	Asn	Met	Gly
305					310					315					320
Leu	Ala	Leu	Thr	Arg	Asn	Ala	Tyr	Gln	Lys	Leu	Ile	Glu	Cys	Thr	Asp
				325					330					335	
Thr	Phe	Cys	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Thr	Leu	Gln	Tyr
			340					345					350		
Leu	Thr	Val	Ser	Cys	Leu	Pro	Lys	Phe	Trp	Lys	Val	Leu	Val	Pro	Gln
		355					360					365			
Ile	Pro	Arg	Ile	Phe	His	Ala	Gly	Asp	Cys	Gly	Met	His	His	Lys	Lys
	370					375					380				
Thr	Cys	Arg	Pro	Ser	Thr	Gln	Ser	Ala	Gln	Ile	Glu	Ser	Leu	Leu	Asn
385					390					395					400
Asn	Asn	Lys	Gln	Tyr	Met	Phe	Pro	Glu	Thr	Leu	Thr	Ile	Ser	Glu	Lys
				405					410					415	
Phe	Thr	Val	Val	Ala	Ile	Ser	Pro	Pro	Arg	Lys	Asn	Gly	Gly	Trp	Gly
			420					425					430		
Asp	Ile	Arg	Asp	His	Glu	Leu	Cys	Lys	Ser	Tyr	Arg	Arg	Leu	Gln	Gly
		435					440					445			
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Arg
	450					455					460				
Val	Pro	Thr	Ala	Ala	Pro	Pro	Ala	Gln	Pro	Arg	Val	Pro	Val	Thr	Pro
465					470					475					480
Ala	Pro	Ala	Val	Ile	Pro	Ile	Leu	Val	Ile	Ala	Cys	Asp	Arg	Ser	Thr
				485					490					495	
Val	Arg	Arg	Cys	Leu	Asp	Lys	Leu	Leu	His	Tyr	Arg	Pro	Ser	Ala	Glu
			500					505					510		
Leu	Phe	Pro	Ile	Ile	Val	Ser	Gln	Asp	Cys	Gly	His	Glu	Glu	Thr	Ala
		515					520					525			
Gln	Ala	Ile	Ala	Ser	Tyr	Gly	Ser	Ala	Val	Thr	His	Ile	Arg	Gln	Pro
	530					535					540				
Asp	Leu	Ser	Ser	Ile	Ala	Val	Pro	Pro	Asp	His	Arg	Lys	Phe	Gln	Gly
545					550					555					560
Tyr	Tyr	Lys	Ile	Ala	Arg	His	Tyr	Arg	Trp	Ala	Leu	Gly	Gln	Val	Phe
				565					570					575	
Arg	Gln	Phe	Arg	Phe	Pro	Ala	Ala	Val	Val	Val	Glu	Asp	Asp	Leu	Glu
			580					585					590		
Val	Ala	Pro	Asp	Phe	Phe	Glu	Tyr	Phe	Arg	Ala	Thr	Tyr	Pro	Leu	Leu
		595					600					605			
Lys	Ala	Asp	Pro	Ser	Leu	Trp	Cys	Val	Ser	Ala	Trp	Asn	Asp	Asn	Gly
	610					615					620				
Lys	Glu	Gln	Met	Val	Asp	Ala	Ser	Arg	Pro	Glu	Leu	Leu	Tyr	Arg	Thr
625					630					635					640
Asp	Phe	Phe	Pro	Gly	Leu	Gly	Trp	Leu	Leu	Leu	Ala	Glu	Leu	Trp	Ala
				645					650					655	
Glu	Leu	Glu	Pro	Lys	Trp	Pro	Lys	Ala	Phe	Trp	Asp	Asp	Trp	Met	Arg
			660					665					670		

eolf-seq1

Arg	Pro	Glu	Gln	Arg	Gln	Gly	Arg	Ala	Cys	Ile	Arg	Pro	Glu	Ile	Ser
		675					680					685			
Arg	Thr	Met	Thr	Phe	Gly	Arg	Lys	Gly	Val	Ser	His	Gly	Gln	Phe	Phe
	690					695				700					
Asp	Gln	His	Leu	Lys	Phe	Ile	Lys	Leu	Asn	Gln	Gln	Phe	Val	His	Phe
705					710					715					720
Thr	Gln	Leu	Asp	Leu	Ser	Tyr	Leu	Gln	Arg	Glu	Ala	Tyr	Asp	Arg	Asp
			725						730					735	
Phe	Leu	Ala	Arg	Val	Tyr	Gly	Ala	Pro	Gln	Leu	Gln	Val	Glu	Lys	Val
			740					745					750		
Arg	Thr	Asn	Asp	Arg	Lys	Glu	Leu	Gly	Glu	Val	Arg	Val	Gln	Tyr	Thr
		755					760					765			
Gly	Arg	Asp	Ser	Phe	Lys	Ala	Phe	Ala	Lys	Ala	Leu	Gly	Val	Met	Asp
	770					775					780				
Asp	Leu	Lys	Ser	Gly	Val	Pro	Arg	Ala	Gly	Tyr	Arg	Gly	Ile	Val	Thr
785					790					795					800
Phe	Gln	Phe	Arg	Gly	Arg	Arg	Val	His	Leu	Ala	Pro	Pro	Pro	Thr	Trp
				805					810					815	
Glu	Gly	Tyr	Asp	Pro	Ser	Trp	Asn								
			820												

<210> 120
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthesized Construct

<400> 120
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 1 5 10

<210> 121
 <211> 819
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthesized Construct

<400> 121

Met	Arg	Phe	Arg	Ile	Tyr	Lys	Arg	Lys	Val	Leu	Ile	Leu	Thr	Leu	Val
1				5					10					15	
Val	Ala	Ala	Cys	Gly	Phe	Val	Leu	Trp	Ser	Ser	Asn	Gly	Arg	Gln	Arg
			20					25				30			
Lys	Asn	Glu	Ala	Leu	Ala	Pro	Pro	Leu	Leu	Asp	Ala	Glu	Pro	Ala	Arg
		35					40					45			
Gly	Ala	Gly	Gly	Arg	Gly	Gly	Asp	His	Pro	Ser	Val	Ala	Val	Gly	Ile
	50				55						60				
Arg	Arg	Val	Ser	Asn	Val	Ser	Ala	Ala	Ser	Leu	Val	Pro	Ala	Val	Pro
65					70					75					80
Gln	Pro	Glu	Ala	Asp	Asn	Leu	Thr	Leu	Arg	Tyr	Arg	Ser	Leu	Val	Tyr
				85					90					95	
Gln	Leu	Asn	Phe	Asp	Gln	Thr	Leu	Arg	Asn	Val	Asp	Lys	Ala	Gly	Thr
			100					105					110		
Trp	Ala	Pro	Arg	Glu	Leu	Val	Leu	Val	Val	Gln	Val	His	Asn	Arg	Pro
		115					120					125			
Glu	Tyr	Leu	Arg	Leu	Leu	Leu	Asp	Ser	Leu	Arg	Lys	Ala	Gln	Gly	Ile
	130					135					140				
Asp	Asn	Val	Leu	Val	Ile	Phe	Ser	His	Asp	Phe	Trp	Ser	Thr	Glu	Ile
145					150					155					160
Asn	Gln	Leu	Ile	Ala	Gly	Val	Asn	Phe	Cys	Pro	Val	Leu	Gln	Val	Phe
				165					170					175	
Phe	Pro	Phe	Ser	Ile	Gln	Leu	Tyr	Pro	Asn	Glu	Phe	Pro	Gly	Ser	Asp
			180					185					190		

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Pro	Arg	Asp	Cys	Pro	Arg	Asp	Leu	Pro	Lys	Asn	Ala	Ala	Leu	Lys	Leu
		195					200					205			
Gly	Cys	Ile	Asn	Ala	Glu	Tyr	Pro	Asp	Ser	Phe	Gly	His	Tyr	Arg	Glu
	210					215					220				
Ala	Lys	Phe	Ser	Gln	Thr	Lys	His	His	Trp	Trp	Trp	Lys	Leu	His	Phe
225					230					235					240
Val	Trp	Glu	Arg	Val	Lys	Ile	Leu	Arg	Asp	Tyr	Ala	Gly	Leu	Ile	Leu
				245					250					255	
Phe	Leu	Glu	Glu	Asp	His	Tyr	Leu	Ala	Pro	Asp	Phe	Tyr	His	Val	Phe
			260					265					270		
Lys	Lys	Met	Trp	Lys	Leu	Lys	Gln	Gln	Glu	Cys	Pro	Glu	Cys	Asp	Val
		275					280					285			
Leu	Ser	Leu	Gly	Thr	Tyr	Ser	Ala	Ser	Arg	Ser	Phe	Tyr	Gly	Met	Ala
	290					295					300				
Asp	Lys	Val	Asp	Val	Lys	Thr	Trp	Lys	Ser	Thr	Glu	His	Asn	Met	Gly
305					310					315					320
Leu	Ala	Leu	Thr	Arg	Asn	Ala	Tyr	Gln	Lys	Leu	Ile	Glu	Cys	Thr	Asp
				325					330					335	
Thr	Phe	Cys	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Thr	Leu	Gln	Tyr
			340					345					350		
Leu	Thr	Val	Ser	Cys	Leu	Pro	Lys	Phe	Trp	Lys	Val	Leu	Val	Pro	Gln
		355					360					365			
Ile	Pro	Arg	Ile	Phe	His	Ala	Gly	Asp	Cys	Gly	Met	His	His	Lys	Lys
	370					375					380				
Thr	Cys	Arg	Pro	Ser	Thr	Gln	Ser	Ala	Gln	Ile	Glu	Ser	Leu	Leu	Asn
385					390					395					400
Asn	Asn	Lys	Gln	Tyr	Met	Phe	Pro	Glu	Thr	Leu	Thr	Ile	Ser	Glu	Lys
				405					410					415	
Phe	Thr	Val	Val	Ala	Ile	Ser	Pro	Pro	Arg	Lys	Asn	Gly	Gly	Trp	Gly
			420					425					430		
Asp	Ile	Arg	Asp	His	Glu	Leu	Cys	Lys	Ser	Tyr	Arg	Arg	Leu	Gln	Gly
		435					440					445			
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Arg	Val	Pro	Thr	Ala	Ala
	450					455					460				
Pro	Pro	Ala	Gln	Pro	Arg	Val	Pro	Val	Thr	Pro	Ala	Pro	Ala	Val	Ile
465					470					475					480
Pro	Ile	Leu	Val	Ile	Ala	Cys	Asp	Arg	Ser	Thr	Val	Arg	Arg	Cys	Leu
				485					490					495	
Asp	Lys	Leu	Leu	His	Tyr	Arg	Pro	Ser	Ala	Glu	Leu	Phe	Pro	Ile	Ile
			500					505					510		
Val	Ser	Gln	Asp	Cys	Gly	His	Glu	Glu	Thr	Ala	Gln	Ala	Ile	Ala	Ser
		515					520					525			
Tyr	Gly	Ser	Ala	Val	Thr	His	Ile	Arg	Gln	Pro	Asp	Leu	Ser	Ser	Ile
	530					535					540				
Ala	Val	Pro	Pro	Asp	His	Arg	Lys	Phe	Gln	Gly	Tyr	Tyr	Lys	Ile	Ala
545					550					555					560
Arg	His	Tyr	Arg	Trp	Ala	Leu	Gly	Gln	Val	Phe	Arg	Gln	Phe	Arg	Phe
				565					570					575	
Pro	Ala	Ala	Val	Val	Glu	Asp	Asp	Leu	Glu	Val	Ala	Pro	Asp	Phe	
			580				585					590			
Phe	Glu	Tyr	Phe	Arg	Ala	Thr	Tyr	Pro	Leu	Leu	Lys	Ala	Asp	Pro	Ser
		595					600					605			
Leu	Trp	Cys	Val	Ser	Ala	Trp	Asn	Asp	Asn	Gly	Lys	Glu	Gln	Met	Val
	610					615					620				
Asp	Ala	Ser	Arg	Pro	Glu	Leu	Leu	Tyr	Arg	Thr	Asp	Phe	Phe	Pro	Gly
625					630					635					640
Leu	Gly	Trp	Leu	Leu	Leu	Ala	Glu	Leu	Trp	Ala	Glu	Leu	Glu	Pro	Lys
				645						650				655	
Trp	Pro	Lys	Ala	Phe	Trp	Asp	Asp	Trp	Met	Arg	Arg	Pro	Glu	Gln	Arg
			660					665					670		
Gln	Gly	Arg	Ala	Cys	Ile	Arg	Pro	Glu	Ile	Ser	Arg	Thr	Met	Thr	Phe
		675					680					685			
Gly	Arg	Lys	Gly	Val	Ser	His	Gly	Gln	Phe	Phe	Asp	Gln	His	Leu	Lys
	690					695					700				
Phe	Ile	Lys	Leu	Asn	Gln	Gln	Phe	Val	His	Phe	Thr	Gln	Leu	Asp	Leu
705					710					715					720
Ser	Tyr	Leu	Gln	Arg	Glu	Ala	Tyr	Asp	Arg	Asp	Phe	Leu	Ala	Arg	Val
				725					730					735	

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Tyr	Gly	Ala	Pro	Gln	Leu	Gln	Val	Glu	Lys	Val	Arg	Thr	Asn	Asp	Arg
			740					745					750		
Lys	Glu	Leu	Gly	Glu	Val	Arg	Val	Gln	Tyr	Thr	Gly	Arg	Asp	Ser	Phe
		755					760					765			
Lys	Ala	Phe	Ala	Lys	Ala	Leu	Gly	Val	Met	Asp	Asp	Leu	Lys	Ser	Gly
		770				775					780				
Val	Pro	Arg	Ala	Gly	Tyr	Arg	Gly	Ile	Val	Thr	Phe	Gln	Phe	Arg	Gly
785					790					795					800
Arg	Arg	Val	His	Leu	Ala	Pro	Pro	Pro	Thr	Trp	Glu	Gly	Tyr	Asp	Pro
				805					810					815	
Ser	Trp	Asn													

<210> 122
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 <212> PRT
 <213> Trichoderma reesei

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 Ser Thr Gly Asn Pro Ser Gly Gly Asn Pro Pro Gly Gly Asn Pro Pro
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 Gly Ser Thr

<210> 123
 <211> 828
 <212> PRT
 <213> Trichoderma reesei

<400> 123

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Val	Ala	Ala	Cys	Gly	Phe	Val	Leu	Trp	Ser	Ser	Asn	Gly	Arg	Gln	Arg
			20					25					30		
Lys	Asn	Glu	Ala	Leu	Ala	Pro	Pro	Leu	Leu	Asp	Ala	Glu	Pro	Ala	Arg
		35					40					45			
Gly	Ala	Gly	Gly	Arg	Gly	Gly	Asp	His	Pro	Ser	Val	Ala	Val	Gly	Ile
	50				55						60				
Arg	Arg	Val	Ser	Asn	Val	Ser	Ala	Ala	Ser	Leu	Val	Pro	Ala	Val	Pro
65					70					75					80
Gln	Pro	Glu	Ala	Asp	Asn	Leu	Thr	Leu	Arg	Tyr	Arg	Ser	Leu	Val	Tyr
				85					90					95	
Gln	Leu	Asn	Phe	Asp	Gln	Thr	Leu	Arg	Asn	Val	Asp	Lys	Ala	Gly	Thr
			100					105					110		
Trp	Ala	Pro	Arg	Glu	Leu	Val	Leu	Val	Val	Gln	Val	His	Asn	Arg	Pro
		115					120					125			
Glu	Tyr	Leu	Arg	Leu	Leu	Leu	Asp	Ser	Leu	Arg	Lys	Ala	Gln	Gly	Ile
	130					135					140				
Asp	Asn	Val	Leu	Val	Ile	Phe	Ser	His	Asp	Phe	Trp	Ser	Thr	Glu	Ile
145					150					155				160	
Asn	Gln	Leu	Ile	Ala	Gly	Val	Asn	Phe	Cys	Pro	Val	Leu	Gln	Val	Phe
				165					170					175	
Phe	Pro	Phe	Ser	Ile	Gln	Leu	Tyr	Pro	Asn	Glu	Phe	Pro	Gly	Ser	Asp
			180					185					190		
Pro	Arg	Asp	Cys	Pro	Arg	Asp	Leu	Pro	Lys	Asn	Ala	Ala	Leu	Lys	Leu
		195					200					205			
Gly	Cys	Ile	Asn	Ala	Glu	Tyr	Pro	Asp	Ser	Phe	Gly	His	Tyr	Arg	Glu
	210					215					220				
Ala	Lys	Phe	Ser	Gln	Thr	Lys	His	His	Trp	Trp	Trp	Lys	Leu	His	Phe
225					230					235					240
Val	Trp	Glu	Arg	Val	Lys	Ile	Leu	Arg	Asp	Tyr	Ala	Gly	Leu	Ile	Leu
				245					250					255	
Phe	Leu	Glu	Glu	Asp	His	Tyr	Leu	Ala	Pro	Asp	Phe	Tyr	His	Val	Phe
			260					265					270		
Lys	Lys	Met	Trp	Lys	Leu	Lys	Gln	Gln	Glu	Cys	Pro	Glu	Cys	Asp	Val
		275					280					285			

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Leu	Ser	Leu	Gly	Thr	Tyr	Ser	Ala	Ser	Arg	Ser	Phe	Tyr	Gly	Met	Ala
290						295					300				
Asp	Lys	Val	Asp	Val	Lys	Thr	Trp	Lys	Ser	Thr	Glu	His	Asn	Met	Gly
305					310					315					320
Leu	Ala	Leu	Thr	Arg	Asn	Ala	Tyr	Gln	Lys	Leu	Ile	Glu	Cys	Thr	Asp
				325					330					335	
Thr	Phe	Cys	Thr	Tyr	Asp	Asp	Tyr	Asn	Trp	Asp	Trp	Thr	Leu	Gln	Tyr
			340					345					350		
Leu	Thr	Val	Ser	Cys	Leu	Pro	Lys	Phe	Trp	Lys	Val	Leu	Val	Pro	Gln
		355					360				365				
Ile	Pro	Arg	Ile	Phe	His	Ala	Gly	Asp	Cys	Gly	Met	His	His	Lys	Lys
370						375					380				
Thr	Cys	Arg	Pro	Ser	Thr	Gln	Ser	Ala	Gln	Ile	Glu	Ser	Leu	Leu	Asn
385					390					395					400
Asn	Asn	Lys	Gln	Tyr	Met	Phe	Pro	Glu	Thr	Leu	Thr	Ile	Ser	Glu	Lys
				405					410					415	
Phe	Thr	Val	Val	Ala	Ile	Ser	Pro	Pro	Arg	Lys	Asn	Gly	Gly	Trp	Gly
			420					425					430		
Asp	Ile	Arg	Asp	His	Glu	Leu	Cys	Lys	Ser	Tyr	Arg	Arg	Leu	Gln	Ser
		435					440					445			
Thr	Gly	Asn	Pro	Ser	Gly	Gly	Asn	Pro	Pro	Gly	Gly	Asn	Pro	Pro	Gly
	450					455					460				
Ser	Thr	Gly	Arg	Val	Pro	Thr	Ala	Ala	Pro	Pro	Ala	Gln	Pro	Arg	Val
465					470					475					480
Pro	Val	Thr	Pro	Ala	Pro	Ala	Val	Ile	Pro	Ile	Leu	Val	Ile	Ala	Cys
				485					490					495	
Asp	Arg	Ser	Thr	Val	Arg	Arg	Cys	Leu	Asp	Lys	Leu	Leu	His	Tyr	Arg
			500					505					510		
Pro	Ser	Ala	Glu	Leu	Phe	Pro	Ile	Ile	Val	Ser	Gln	Asp	Cys	Gly	His
		515					520					525			
Glu	Glu	Thr	Ala	Gln	Ala	Ile	Ala	Ser	Tyr	Gly	Ser	Ala	Val	Thr	His
	530					535					540				
Ile	Arg	Gln	Pro	Asp	Leu	Ser	Ser	Ile	Ala	Val	Pro	Pro	Asp	His	Arg
545					550					555					560
Lys	Phe	Gln	Gly	Tyr	Tyr	Lys	Ile	Ala	Arg	His	Tyr	Arg	Trp	Ala	Leu
				565					570					575	
Gly	Gln	Val	Phe	Arg	Gln	Phe	Arg	Phe	Pro	Ala	Ala	Val	Val	Val	Glu
			580					585					590		
Asp	Asp	Leu	Glu	Val	Ala	Pro	Asp	Phe	Phe	Glu	Tyr	Phe	Arg	Ala	Thr
		595					600					605			
Tyr	Pro	Leu	Leu	Lys	Ala	Asp	Pro	Ser	Leu	Trp	Cys	Val	Ser	Ala	Trp
	610					615					620				
Asn	Asp	Asn	Gly	Lys	Glu	Gln	Met	Val	Asp	Ala	Ser	Arg	Pro	Glu	Leu
625					630					635					640
Leu	Tyr	Arg	Thr	Asp	Phe	Phe	Pro	Gly	Leu	Gly	Trp	Leu	Leu	Leu	Ala
				645					650					655	
Glu	Leu	Trp	Ala	Glu	Leu	Glu	Pro	Lys	Trp	Pro	Lys	Ala	Phe	Trp	Asp
			660					665					670		
Asp	Trp	Met	Arg	Arg	Pro	Glu	Gln	Arg	Gln	Gly	Arg	Ala	Cys	Ile	Arg
		675					680					685			
Pro	Glu	Ile	Ser	Arg	Thr	Met	Thr	Phe	Gly	Arg	Lys	Gly	Val	Ser	His
	690					695					700				
Gly	Gln	Phe	Phe	Asp	Gln	His	Leu	Lys	Phe	Ile	Lys	Leu	Asn	Gln	Gln
705					710					715					720
Phe	Val	His	Phe	Thr	Gln	Leu	Asp	Leu	Ser	Tyr	Leu	Gln	Arg	Glu	Ala
				725					730					735	
Tyr	Asp	Arg	Asp	Phe	Leu	Ala	Arg	Val	Tyr	Gly	Ala	Pro	Gln	Leu	Gln
			740					745					750		
Val	Glu	Lys	Val	Arg	Thr	Asn	Asp	Arg	Lys	Glu	Leu	Gly	Glu	Val	Arg
		755					760					765			
Val	Gln	Tyr	Thr	Gly	Arg	Asp	Ser	Phe	Lys	Ala	Phe	Ala	Lys	Ala	Leu
	770					775					780				
Gly	Val	Met	Asp	Asp	Leu	Lys	Ser	Gly	Val	Pro	Arg	Ala	Gly	Tyr	Arg
785					790					795					800
Gly	Ile	Val	Thr	Phe	Gln	Phe	Arg	Gly	Arg	Arg	Val	His	Leu	Ala	Pro
				805					810					815	
Pro	Pro	Thr	Trp	Glu	Gly	Tyr	Asp	Pro	Ser	Trp	Asn				
			820					825							

eof-seq1

<210> 124
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 <212> PRT
 <213> Trichoderma reesei

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 Ser Gly Pro Thr Ser
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 <213> Trichoderma reesei

<400> 125
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 35 40 45
 Gly Ala Gly Gly Arg Gly Gly Asp His Pro Ser Val Ala Val Gly Ile
 50 55 60
 Arg Arg Val Ser Asn Val Ser Ala Ala Ser Leu Val Pro Ala Val Pro
 65 70 75 80
 Gln Pro Glu Ala Asp Asn Leu Thr Leu Arg Tyr Arg Ser Leu Val Tyr
 85 90 95
 Gln Leu Asn Phe Asp Gln Thr Leu Arg Asn Val Asp Lys Ala Gly Thr
 100 105 110
 Trp Ala Pro Arg Glu Leu Val Leu Val Val Gln Val His Asn Arg Pro
 115 120 125
 Glu Tyr Leu Arg Leu Leu Leu Asp Ser Leu Arg Lys Ala Gln Gly Ile
 130 135 140
 Asp Asn Val Leu Val Ile Phe Ser His Asp Phe Trp Ser Thr Glu Ile
 145 150 155 160
 Asn Gln Leu Ile Ala Gly Val Asn Phe Cys Pro Val Leu Gln Val Phe
 165 170 175
 Phe Pro Phe Ser Ile Gln Leu Tyr Pro Asn Glu Phe Pro Gly Ser Asp
 180 185 190
 Pro Arg Asp Cys Pro Arg Asp Leu Pro Lys Asn Ala Ala Leu Lys Leu
 195 200 205
 Gly Cys Ile Asn Ala Glu Tyr Pro Asp Ser Phe Gly His Tyr Arg Glu
 210 215 220
 Ala Lys Phe Ser Gln Thr Lys His His Trp Trp Trp Lys Leu His Phe
 225 230 235 240
 Val Trp Glu Arg Val Lys Ile Leu Arg Asp Tyr Ala Gly Leu Ile Leu
 245 250 255
 Phe Leu Glu Glu Asp His Tyr Leu Ala Pro Asp Phe Tyr His Val Phe
 260 265 270
 Lys Lys Met Trp Lys Leu Lys Gln Gln Glu Cys Pro Glu Cys Asp Val
 275 280 285
 Leu Ser Leu Gly Thr Tyr Ser Ala Ser Arg Ser Phe Tyr Gly Met Ala
 290 295 300
 Asp Lys Val Asp Val Lys Thr Trp Lys Ser Thr Glu His Asn Met Gly
 305 310 315 320
 Leu Ala Leu Thr Arg Asn Ala Tyr Gln Lys Leu Ile Glu Cys Thr Asp
 325 330 335
 Thr Phe Cys Thr Tyr Asp Asp Tyr Asn Trp Asp Trp Thr Leu Gln Tyr
 340 345 350
 Leu Thr Val Ser Cys Leu Pro Lys Phe Trp Lys Val Leu Val Pro Gln
 355 360 365
 Ile Pro Arg Ile Phe His Ala Gly Asp Cys Gly Met His His Lys Lys
 370 375 380

eo1f-seq1

Thr 385	Cys	Arg	Pro	Ser	Thr 390	Gln	Ser	Ala	Gln	Ile 395	Glu	Ser	Leu	Leu	Asn 400
Asn	Asn	Lys	Gln	Tyr 405	Met	Phe	Pro	Glu	Thr 410	Leu	Thr	Ile	Ser	Glu	Lys
Phe	Thr	Val	Val	Ala 420	Ile	Ser	Pro	Pro	Arg	Lys	Asn	Gly	Gly	Trp	Gly
Asp	Ile	Arg 435	Asp	His	Glu	Leu	Cys 440	Lys	Ser	Tyr	Arg	Arg 445	Leu	Gln	Ser
Ser	Ala 450	Ala	Thr	Ala	Thr	Ala 455	Ser	Ala	Thr	Val	Pro 460	Gly	Gly	Gly	Ser
Gly 465	Pro	Thr	Ser	Gly	Arg 470	Val	Pro	Thr	Ala	Ala 475	Pro	Pro	Ala	Gln	Pro 480
Arg	Val	Pro	Val	Thr 485	Pro	Ala	Pro	Ala	Val	Ile 490	Pro	Ile	Leu	Val	Ile 495
Ala	Cys	Asp	Arg 500	Ser	Thr	Val	Arg	Arg 505	Cys	Leu	Asp	Lys	Leu	Leu	His
Tyr	Arg	Pro 515	Ser	Ala	Glu	Leu	Phe 520	Pro	Ile	Ile	Val	Ser 525	Gln	Asp	Cys
Gly	His 530	Glu	Glu	Thr	Ala	Gln 535	Ala	Ile	Ala	Ser	Tyr 540	Gly	Ser	Ala	Val
Thr 545	His	Ile	Arg	Gln	Pro 550	Asp	Leu	Ser	Ser	Ile 555	Ala	Val	Pro	Pro	Asp 560
His	Arg	Lys	Phe 565	Gln	Gly	Tyr	Tyr	Lys	Ile 570	Ala	Arg	His	Tyr	Arg	Trp 575
Ala	Leu	Gly	Gln 580	Val	Phe	Arg	Gln	Phe 585	Arg	Phe	Pro	Ala	Ala	Val	Val
Val	Glu	Asp 595	Asp	Leu	Glu	Val	Ala 600	Pro	Asp	Phe	Phe	Glu	Tyr	Phe	Arg
Ala	Thr 610	Tyr	Pro	Leu	Leu	Lys 615	Ala	Asp	Pro	Ser	Leu 620	Trp	Cys	Val	Ser
Ala 625	Trp	Asn	Asp	Asn	Gly 630	Lys	Glu	Gln	Met	Val 635	Asp	Ala	Ser	Arg	Pro 640
Glu	Leu	Leu	Tyr	Arg 645	Thr	Asp	Phe	Phe	Pro 650	Gly	Leu	Gly	Trp	Leu	Leu 655
Leu	Ala	Glu	Leu 660	Trp	Ala	Glu	Leu	Glu 665	Pro	Lys	Trp	Pro	Lys	Ala	Phe
Trp	Asp	Asp 675	Trp	Met	Arg	Arg	Pro 680	Glu	Gln	Arg	Gln	Gly 685	Arg	Ala	Cys
Ile	Arg 690	Pro	Glu	Ile	Ser	Arg 695	Thr	Met	Thr	Phe	Gly 700	Arg	Lys	Gly	Val
Ser 705	His	Gly	Gln	Phe	Phe 710	Asp	Gln	His	Leu	Lys 715	Phe	Ile	Lys	Leu	Asn 720
Gln	Gln	Phe	Val 725	His	Phe	Thr	Gln	Leu	Asp 730	Leu	Ser	Tyr	Leu	Gln	Arg 735
Glu	Ala	Tyr	Asp 740	Arg	Asp	Phe	Leu	Ala 745	Arg	Val	Tyr	Gly	Ala	Pro	Gln
Leu	Gln 755	Val	Glu	Lys	Val	Arg	Thr 760	Asn	Asp	Arg	Lys	Glu 765	Leu	Gly	Glu
Val	Arg 770	Val	Gln	Tyr	Thr	Gly 775	Arg	Asp	Ser	Phe	Lys 780	Ala	Phe	Ala	Lys
Ala 785	Leu	Gly	Val	Met	Asp 790	Asp	Leu	Lys	Ser	Gly 795	Val	Pro	Arg	Ala	Gly 800
Tyr	Arg	Gly	Ile 805	Val	Thr	Phe	Gln	Phe	Arg 810	Gly	Arg	Arg	Val	His	Leu 815
Ala	Pro	Pro	Pro 820	Thr	Trp	Glu	Gly	Tyr 825	Asp	Pro	Ser	Trp	Asn 830		

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<211> 420

<212> PRT

<213> Trichoderma reesei

<400> 126

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Ala	Leu	Ser	Arg	Tyr	Val	Ile	Phe	Gly	Leu	Trp	Leu	Ala	Asp	Ala	Val
			20					25					30		

eolf-seq1

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Leu Cys Gly Leu Ile Ile Trp Lys Val Pro Tyr Thr Glu Ile Asp Trp
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Val Ala Tyr Met Glu Gln Val Thr Gln Phe Val His Gly Glu Arg Asp
50 55 60
Tyr Pro Lys Met Glu Gly Gly Thr Gly Pro Leu Val Tyr Pro Ala Ala
65 70 75 80
His Val Tyr Ile Tyr Thr Gly Leu Tyr Tyr Leu Thr Asn Lys Gly Thr
85 90 95
Asp Ile Leu Leu Ala Gln Gln Leu Phe Ala Val Leu Tyr Met Ala Thr
100 105 110
Leu Ala Val Val Met Thr Cys Tyr Ser Lys Ala Lys Val Pro Pro Tyr
115 120 125
Ile Phe Pro Leu Leu Ile Leu Ser Lys Arg Leu His Ser Val Phe Val
130 135 140
Leu Arg Cys Phe Asn Asp Cys Phe Ala Ala Phe Phe Leu Trp Leu Cys
145 150 155 160
Ile Phe Phe Phe Gln Arg Arg Glu Trp Thr Ile Gly Ala Leu Ala Tyr
165 170 175
Ser Ile Gly Leu Gly Val Lys Met Ser Leu Leu Leu Val Leu Pro Ala
180 185 190
Val Val Ile Val Leu Tyr Leu Gly Arg Gly Phe Lys Gly Ala Leu Arg
195 200 205
Leu Leu Trp Leu Met Val Gln Val Gln Leu Leu Leu Ala Ile Pro Phe
210 215 220
Ile Thr Thr Asn Trp Arg Gly Tyr Leu Gly Arg Ala Phe Glu Leu Ser
225 230 235 240
Arg Gln Phe Lys Phe Glu Trp Thr Val Asn Trp Arg Met Leu Gly Glu
245 250 255
Asp Leu Phe Leu Ser Arg Gly Phe Ser Ile Thr Leu Leu Ala Phe His
260 265 270
Ala Ile Phe Leu Leu Ala Phe Ile Leu Gly Arg Trp Leu Lys Ile Arg
275 280 285
Glu Arg Thr Val Leu Gly Met Ile Pro Tyr Val Ile Arg Phe Arg Ser
290 295 300
Pro Phe Thr Glu Gln Glu Glu Arg Ala Ile Ser Asn Arg Val Val Thr
305 310 315 320
Pro Gly Tyr Val Met Ser Thr Ile Leu Ser Ala Asn Val Val Gly Leu
325 330 335
Leu Phe Ala Arg Ser Leu His Tyr Gln Phe Tyr Ala Tyr Leu Ala Trp
340 345 350
Ala Thr Pro Tyr Leu Leu Trp Thr Ala Cys Pro Asn Leu Leu Val Val
355 360 365
Ala Pro Leu Trp Ala Ala Gln Glu Trp Ala Trp Asn Val Phe Pro Ser
370 375 380
Thr Pro Leu Ser Ser Ser Val Val Val Ser Val Leu Ala Val Thr Val
385 390 395 400
Ala Met Ala Phe Ala Gly Ser Asn Pro Gln Pro Arg Glu Thr Ser Lys
405 410 415
Pro Lys Gln His
420

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<210> 127
 <211> 525
 <212> PRT
 <213> Trichoderma atroviride

<400> 127
 Met Ala Ser Leu Ile Lys Phe Ala Ser Asp Val Ala Thr Gly Arg His
 1 5 10 15
 Ala Leu Ser Lys Leu Ile Pro Val Gly Leu Phe Leu Ala Asp Ala Ile
 20 25 30
 Leu Cys Gly Leu Val Ile Trp Lys Val Pro Tyr Thr Glu Ile Asp Trp
 35 40 45
 Thr Ala Tyr Met Glu Gln Val Thr Gln Phe Val Asn Gly Glu Arg Asp
 50 55 60
 Tyr Pro Lys Met Glu Gly Gly Thr Gly Pro Leu Val Tyr Pro Ala Ala
 65 70 75 80

eolf-seq1

His	Val	Tyr	Ile	Tyr	Thr	Gly	Leu	Tyr	Tyr	Leu	Thr	Asn	Arg	Gly	Thr
Asp	Ile	Leu	Leu	Ala	Gln	Gln	Leu	Phe	Ala	Val	Leu	Tyr	Met	Ala	Thr
Leu	Gly	Val	Val	Met	Leu	Ser	Tyr	Trp	Lys	Ala	Arg	Val	Pro	Pro	Tyr
Ile	Phe	Pro	Leu	Leu	Ile	Leu	Ser	Lys	Arg	Leu	His	Ser	Val	Phe	Val
Leu	Arg	Cys	Phe	Asn	Asp	Cys	Phe	Ala	Ala	Phe	Phe	Leu	Trp	Leu	Cys
Ile	Tyr	Ser	Phe	Gln	Asn	Arg	Ala	Trp	Thr	Phe	Gly	Ala	Leu	Ala	Tyr
Thr	Leu	Gly	Leu	Gly	Val	Lys	Met	Ser	Leu	Leu	Leu	Val	Leu	Pro	Ala
Val	Val	Ile	Ile	Leu	Phe	Leu	Gly	Arg	Gly	Phe	Lys	Gly	Ala	Leu	Arg
Leu	Val	Trp	Leu	Met	Ala	Gln	Val	Gln	Leu	Val	Leu	Ala	Ile	Pro	Phe
Ile	Thr	Thr	Asn	Trp	Ala	Gly	Tyr	Leu	Gly	Arg	Ala	Phe	Glu	Leu	Ser
Arg	Gln	Phe	Lys	Phe	Glu	Trp	Thr	Val	Asn	Trp	Arg	Met	Met	Gly	Glu
Glu	Thr	Phe	Leu	Ser	Arg	Gly	Phe	Ser	Ile	Thr	Leu	Leu	Thr	Phe	His
Val	Val	Thr	Leu	Leu	Val	Phe	Ile	Ala	Ala	Arg	Trp	Leu	Lys	Leu	Gln
Glu	Arg	Ser	Leu	Leu	Gly	Ile	Ile	Thr	Tyr	Ala	Val	Arg	Phe	Gln	Ser
Pro	Phe	Thr	Glu	Gln	Glu	Glu	Ala	Lys	Val	Ser	Lys	Lys	Val	Val	Thr
Pro	Arg	Tyr	Val	Leu	Ala	Thr	Ile	Leu	Ser	Ala	Asn	Val	Ile	Gly	Leu
Leu	Phe	Ala	Arg	Ser	Leu	His	Tyr	Gln	Phe	Tyr	Ala	Tyr	Leu	Ala	Trp
Ala	Thr	Pro	Phe	Leu	Leu	Trp	Thr	Ala	Tyr	Pro	Asn	Leu	Leu	Val	Val
Val	Pro	Leu	Trp	Leu	Ala	Gln	Glu	Trp	Ala	Trp	Asn	Val	Phe	Pro	Ser
Thr	Pro	Leu	Ser	Ser	Ser	Val	Val	Ile	Ser	Leu	Val	Pro	Val	Cys	Leu
Leu	Ser	Pro	Gln	Leu	Leu	Val	Ser	His	Asp	Ile	Tyr	Asn	Phe	Ala	Asn
Cys	Ser	Ala	Ile	Leu	Arg	Pro	Arg	Gly	Ile	Ala	Phe	Gly	Gln	Asp	Ile
Ser	Ala	Thr	Leu	Asn	Pro	Asp	Gly	Val	Ala	Lys	Pro	Leu	Gly	Glu	Leu
Glu	Asn	Asp	Gly	Leu	Arg	Val	Trp	His	Leu	Ala	Ser	Val	Gln	Val	Val
Ser	Phe	Gly	Leu	His	His	Ala	His	Asn	Glu	Leu	Gly	Gly	Leu	Gln	Phe
Gly	Trp	Trp	Arg	Glu	Arg	Phe	Leu	Arg	Gly	Gly	Glu	Asp	Val	Ala	Leu
Trp	Phe	Ala	His	Gly	Gly	Phe	Glu	Phe	Arg	Phe	Phe	Ser	Glu	Leu	Leu
Val	Arg	Leu	Ala	Asp	Thr	Ser	Asp	Ile	Lys	Lys	Ser	Phe			

<210> 128
 <211> 419
 <212> PRT
 <213> Trichoderma virens

<400> 128
 Met Ala Ser Leu Ile Lys Phe Ala Ser Asp Val Ala Asn Gly Arg His
 1 5 10 15
 Ala Leu Ser Lys Phe Ile Pro Met Gly Leu Trp Leu Ala Asp Ala Val
 20 25 30

eolf-seq1

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Leu Cys Gly Leu Ile Ile Trp Lys Val Pro Tyr Thr Glu Ile Asp Trp
35 40 45
Val Ala Tyr Met Glu Gln Ile Thr Gln Phe Val His Gly Glu Arg Asp
50 55 60
Tyr Pro Lys Met Glu Gly Gly Thr Gly Pro Leu Val Tyr Pro Ala Ala
65 70 75 80
His Val Tyr Ile Tyr Thr Gly Leu Tyr Tyr Leu Thr Asn Lys Gly Thr
85 90 95
Asp Ile Leu Leu Ala Gln Gln Leu Phe Ala Val Leu Tyr Met Ala Thr
100 105 110
Leu Gly Val Val Met Leu Cys Tyr Trp Lys Ala Lys Val Pro Pro Tyr
115 120 125
Ile Phe Pro Leu Leu Ile Leu Ser Lys Arg Leu His Ser Val Phe Val
130 135 140
Leu Arg Cys Phe Asn Asp Cys Phe Ala Ala Phe Phe Leu Trp Leu Ser
145 150 155 160
Ile Phe Phe Phe Gln Arg Arg Val Trp Thr Leu Gly Ala Ile Ala Tyr
165 170 175
Thr Ile Gly Leu Gly Val Lys Met Ser Leu Leu Leu Val Leu Pro Ala
180 185 190
Val Val Ile Val Leu Phe Leu Gly Arg Gly Phe Lys Gly Ala Leu Arg
195 200 205
Leu Leu Trp Leu Met Val Gln Val Gln Leu Leu Leu Ala Ile Pro Phe
210 215 220
Ile Thr Thr Asn Trp Lys Gly Tyr Leu Gly Arg Ala Phe Glu Leu Ser
225 230 235 240
Arg Gln Phe Lys Phe Glu Trp Thr Val Asn Trp Arg Met Leu Gly Glu
245 250 255
Glu Leu Phe Leu Ser Arg Gly Phe Ser Ile Thr Leu Leu Ala Phe His
260 265 270
Ala Leu Phe Leu Leu Ile Phe Ile Leu Gly Arg Trp Leu Arg Ile Lys
275 280 285
Glu Arg Ser Phe Leu Gly Met Ile Pro Tyr Val Leu Arg Phe Thr Ser
290 295 300
Pro Phe Thr Glu His Glu Ala Ser Ile Ser His Arg Val Val Thr
305 310 315 320
Pro Glu Tyr Ile Met Ser Ala Met Leu Ser Ala Asn Val Val Gly Leu
325 330 335
Leu Phe Ala Arg Ser Leu His Tyr Gln Phe Tyr Ala Tyr Leu Ala Trp
340 345 350
Ala Thr Pro Phe Leu Leu Trp Thr Ala Ser Pro Asn Leu Leu Val Val
355 360 365
Val Pro Leu Trp Ala Ala Gln Glu Trp Ala Trp Asn Val Phe Pro Ser
370 375 380
Thr Pro Leu Ser Ser Asn Val Val Val Ser Val Leu Ala Val Thr Val
385 390 395 400
Ala Met Ala Phe Val Gly Ser Asn Pro Gln Arg Gly Ala Pro Lys Pro
405 410 415
Lys Gln Leu

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<210> 129

<211> 434

<212> PRT

<213> Fusarium oxysporum

<400> 129

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Met Pro Glu Ser Ala Ser Gly Thr Leu Ser Gln Gly Val Arg Phe Leu
1 5 10 15
Arg Asn Val Leu Asn Gly Arg His Ala Leu Ser Lys Leu Ile Pro Ile
20 25 30
Ala Leu Trp Leu Val Asp Ala Leu Gly Cys Gly Leu Ile Ile Trp Lys
35 40 45
Ile Pro Tyr Thr Glu Ile Asp Trp Val Ala Tyr Met Gln Gln Ile Ser
50 55 60
Gln Phe Val Ser Gly Glu Arg Asp Tyr Thr Lys Met Glu Gly Asp Thr
65 70 75 80

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eolf-seql

Gly	Pro	Leu	Val	Tyr	Pro	Ala	Ala	His	Val	Tyr	Thr	Tyr	Thr	Gly	Leu
				85					90					95	
Tyr	Tyr	Ile	Thr	Asp	Lys	Gly	Thr	Asn	Ile	Leu	Leu	Ala	Gln	Gln	Ile
			100					105					110		
Phe	Ala	Val	Leu	Tyr	Met	Ala	Thr	Leu	Ala	Val	Val	Met	Leu	Cys	Tyr
		115					120					125			
Trp	Lys	Ala	Lys	Val	Pro	Pro	Tyr	Met	Phe	Ile	Phe	Leu	Ile	Ala	Ser
		130				135					140				
Lys	Arg	Leu	His	Ser	Leu	Phe	Val	Leu	Arg	Cys	Phe	Asn	Asp	Cys	Phe
145					150					155					160
Ala	Val	Phe	Phe	Leu	Trp	Leu	Thr	Ile	Phe	Leu	Phe	Gln	Arg	Arg	Gln
			165						170					175	
Trp	Thr	Val	Gly	Ser	Leu	Val	Tyr	Ser	Trp	Gly	Leu	Gly	Ile	Lys	Met
			180					185					190		
Ser	Leu	Leu	Leu	Val	Leu	Pro	Ala	Ile	Gly	Val	Ile	Leu	Phe	Leu	Gly
		195				200						205			
Arg	Gly	Leu	Trp	Pro	Ser	Leu	Arg	Leu	Ala	Trp	Leu	Met	Ala	Gln	Ile
	210					215					220				
Gln	Phe	Ala	Ile	Gly	Leu	Pro	Phe	Ile	Thr	Lys	Asn	Pro	Arg	Gly	Tyr
225					230					235					240
Ala	Ala	Arg	Ala	Phe	Glu	Leu	Ser	Arg	Gln	Phe	Gln	Phe	Lys	Trp	Thr
			245						250					255	
Val	Asn	Trp	Arg	Met	Leu	Gly	Glu	Glu	Val	Phe	Leu	Ser	Lys	Tyr	Phe
			260					265					270		
Ala	Leu	Ser	Leu	Leu	Ala	Cys	His	Ile	Leu	Val	Leu	Leu	Ile	Phe	Ile
		275					280					285			
Ser	Lys	Arg	Trp	Ile	Gln	Pro	Thr	Gly	Arg	Ser	Leu	Tyr	Asp	Leu	Ile
	290					295					300				
Pro	Ser	Phe	Leu	Arg	Leu	Lys	Ser	Pro	Phe	Thr	Met	Gln	Glu	Gln	Leu
305					310					315					320
Arg	Ile	Ser	His	Tyr	Val	Thr	Pro	Glu	Tyr	Ala	Met	Thr	Thr	Met	Leu
			325						330					335	
Thr	Ala	Asn	Leu	Ile	Gly	Leu	Leu	Phe	Ala	Arg	Ser	Leu	His	Tyr	Gln
			340					345					350		
Phe	Tyr	Ala	Tyr	Leu	Ala	Trp	Ala	Thr	Pro	Tyr	Leu	Leu	Trp	Arg	Ala
		355					360					365			
Thr	Glu	Asp	Pro	Val	Ile	Val	Ala	Ile	Ile	Trp	Ala	Ala	Gln	Glu	Trp
	370					375					380				
Ala	Trp	Asn	Val	Tyr	Pro	Ser	Thr	Asp	Leu	Ser	Ser	Thr	Ile	Ala	Val
385					390					395					400
Asn	Thr	Met	Leu	Ala	Thr	Val	Val	Leu	Val	Tyr	Leu	Gly	Thr	Ala	Arg
			405						410					415	
Arg	Ala	Val	Pro	Ala	Pro	Ala	Ala	Gln	Val	Gly	Asn	Val	Asp	Asp	Lys
			420					425					430		

Asn Lys

<210> 130
 <211> 432
 <212> PRT
 <213> Gibberella zeae

<400> 130

Met	Ala	Asp	Pro	Ala	Pro	Gly	Ala	Leu	Ala	Arg	Gly	Thr	Arg	Phe	Val
1				5					10					15	
Arg	Asn	Val	Leu	Thr	Gly	Gln	His	Ala	Leu	Ser	Lys	Leu	Ile	Pro	Val
		20					25						30		
Ala	Leu	Trp	Leu	Ala	Asp	Ala	Val	Gly	Thr	Ser	Leu	Ile	Ile	Trp	Lys
		35				40						45			
Val	Pro	Tyr	Thr	Glu	Ile	Asp	Trp	Glu	Ala	Tyr	Met	Gln	Gln	Val	Ser
	50					55					60				
Gln	Phe	Ile	Ser	Gly	Glu	Arg	Asp	Tyr	Thr	Lys	Ile	Glu	Gly	Gly	Thr
65				70						75					80
Gly	Pro	Leu	Val	Tyr	Pro	Ala	Ala	His	Val	Tyr	Thr	Phe	Thr	Gly	Leu
			85						90					95	
Tyr	His	Ile	Thr	Asn	Glu	Gly	Glu	Asn	Ile	Phe	Leu	Ala	Gln	Gln	Ile
			100					105					110		

eolf-seq1

Phe	Gly	Val	Leu	Tyr	Met	Ala	Thr	Leu	Ala	Val	Val	Met	Leu	Cys	Tyr
		115					120					125			
Trp	Lys	Ala	Lys	Val	Pro	Pro	Tyr	Met	Phe	Val	Phe	Leu	Ile	Ala	Ser
	130					135					140				
Lys	Arg	Leu	His	Ser	Leu	Phe	Val	Leu	Arg	Cys	Phe	Asn	Asp	Cys	Phe
145					150					155					160
Ala	Val	Phe	Phe	Leu	Trp	Leu	Ser	Ile	Tyr	Phe	Phe	Gln	Arg	Arg	Asn
				165					170					175	
Trp	Thr	Phe	Gly	Ser	Leu	Ala	Tyr	Thr	Trp	Gly	Leu	Gly	Ile	Lys	Met
			180					185					190		
Ser	Leu	Leu	Leu	Val	Leu	Pro	Ala	Ile	Gly	Val	Ile	Leu	Leu	Leu	Gly
		195					200					205			
Arg	Gly	Phe	Trp	Pro	Gly	Leu	Arg	Leu	Ala	Trp	Leu	Met	Ala	Gln	Val
	210					215					220				
Gln	Phe	Ala	Ile	Gly	Ile	Pro	Phe	Ile	Met	Lys	Asn	Ser	Arg	Gly	Tyr
225					230					235					240
Ala	Ala	Arg	Ala	Phe	Glu	Leu	Ser	Arg	Glu	Phe	Lys	Phe	Glu	Trp	Thr
				245					250					255	
Val	Asn	Trp	Arg	Met	Leu	Gly	Glu	Glu	Val	Phe	Leu	Ser	Lys	Ser	Phe
			260				265						270		
Ala	Ile	Phe	Leu	Leu	Ala	Cys	His	Val	Thr	Ala	Leu	Leu	Val	Phe	Ile
		275					280					285			
Ser	Gln	Arg	Trp	Leu	Gln	Pro	Thr	Gly	Arg	Pro	Leu	Ser	Ala	Met	Ile
	290					295					300				
Pro	Ser	Phe	Leu	Gln	Leu	Lys	Ser	Pro	Phe	Thr	Leu	Gln	Glu	Gln	Leu
305					310					315					320
Arg	Ile	Ser	His	Tyr	Val	Thr	Pro	Glu	Tyr	Val	Met	Thr	Thr	Met	Leu
				325					330					335	
Ser	Ala	Asn	Val	Ile	Gly	Leu	Leu	Phe	Ala	Arg	Ser	Leu	His	Tyr	Gln
			340					345					350		
Phe	Tyr	Ala	Tyr	Leu	Ala	Trp	Ala	Ser	Pro	Tyr	Leu	Ile	Trp	Arg	Ala
		355					360					365			
Thr	Glu	Asp	Pro	Phe	Ile	Val	Leu	Leu	Ile	Trp	Ala	Ala	Gln	Glu	Trp
	370					375					380				
Ala	Trp	Asn	Val	Phe	Pro	Ser	Thr	Asp	Leu	Ser	Ser	Arg	Val	Thr	Val
385					390					395					400
Gly	Ala	Met	Leu	Ala	Thr	Val	Val	Leu	Ala	Tyr	Arg	Gly	Thr	Ala	Arg
				405					410					415	
Leu	Ala	Val	Pro	Pro	Ser	Gln	Ala	Arg	Lys	Ile	Glu	Ala	Lys	Asn	Lys
			420					425					430		

<210> 131

<211> 446

<212> PRT

<213> Myceliophthora thermophila

<400> 131

Met	Thr	Arg	Met	Arg	Ser	Ser	Pro	Lys	Thr	Pro	Thr	Ala	Thr	Met	Ala
1				5				10						15	
Asp	Gln	Asn	Arg	Pro	Ile	His	Ile	Arg	Ala	Thr	Arg	Leu	Val	Phe	Asp
			20					25					30		
Ile	Leu	Asn	Gly	Arg	His	Val	Leu	Ser	Lys	Leu	Ile	Pro	Pro	Leu	Val
		35					40					45			
Phe	Leu	Ala	Asp	Ala	Leu	Leu	Cys	Ala	Leu	Ile	Ile	Trp	Lys	Val	Pro
	50				55					60					
Tyr	Thr	Glu	Ile	Asp	Trp	Asn	Ala	Tyr	Met	Glu	Gln	Val	Ala	Gln	Ile
65					70				75					80	
Leu	Ser	Gly	Glu	Arg	Asp	Tyr	Thr	Lys	Ile	Arg	Gly	Asn	Thr	Gly	Pro
				85					90					95	
Leu	Val	Tyr	Pro	Ala	Ala	His	Val	Tyr	Ile	Tyr	Thr	Gly	Leu	Tyr	His
			100					105					110		
Leu	Thr	Asp	Glu	Gly	Arg	Asn	Ile	Leu	Thr	Ala	Gln	Lys	Leu	Phe	Gly
		115					120					125			
Phe	Leu	Tyr	Met	Val	Thr	Leu	Ala	Val	Val	Met	Ala	Cys	Tyr	Trp	Gln
	130					135					140				
Ala	Lys	Val	Pro	Pro	Tyr	Val	Phe	Pro	Leu	Leu	Ile	Leu	Ser	Lys	Arg
145					150				155						160

eolf-seq1

Leu	His	Ser	Ile	Phe	Val	Leu	Arg	Cys	Phe	Asn	Asp	Cys	Phe	Ala	Thr
				165					170					175	
Leu	Phe	Leu	Trp	Leu	Ala	Ile	Phe	Ala	Leu	Gln	Arg	Arg	Ala	Trp	Arg
			180					185					190		
Thr	Gly	Ala	Leu	Met	Tyr	Thr	Leu	Gly	Leu	Gly	Val	Lys	Met	Ser	Leu
		195					200					205			
Leu	Leu	Val	Leu	Pro	Ala	Val	Gly	Val	Val	Leu	Leu	Gly	Ala	Gly	
	210					215					220				
Phe	Ala	Thr	Ser	Leu	Arg	Leu	Ala	Ala	Val	Ile	Gly	Leu	Val	Gln	Val
225					230					235				240	
Leu	Ile	Ala	Val	Pro	Phe	Leu	Ser	Asn	Asn	Pro	Trp	Gly	Tyr	Leu	Gly
				245					250					255	
Arg	Ala	Phe	Glu	Leu	Ser	Arg	Gln	Phe	Phe	Lys	Trp	Thr	Val	Asn	
			260					265					270		
Trp	Arg	Phe	Val	Gly	Glu	Glu	Val	Phe	Leu	Ser	Lys	Glu	Phe	Ser	Leu
		275					280					285			
Ala	Leu	Leu	Gly	Leu	His	Val	Ala	Val	Leu	Ala	Ile	Phe	Val	Thr	Thr
	290					295					300				
Arg	Trp	Leu	Lys	Pro	Ala	Arg	Lys	Pro	Val	Ser	Gln	Leu	Ile	Val	Pro
305					310					315					320
Ile	Leu	Leu	Gly	Lys	Ser	Pro	Phe	Thr	Glu	Glu	Glu	Gln	Arg	Ala	Val
				325					330					335	
Ser	Arg	Asp	Val	Thr	Pro	Arg	Phe	Ile	Leu	Thr	Ser	Ile	Leu	Ser	Ala
			340					345					350		
Asn	Val	Val	Gly	Leu	Leu	Phe	Ala	Arg	Ser	Leu	His	Tyr	Gln	Phe	Tyr
		355					360					365			
Ser	Tyr	Leu	Ala	Trp	Met	Thr	Pro	Tyr	Leu	Leu	Trp	Arg	Ser	Gly	Val
	370					375					380				
His	Pro	Ile	Leu	Gln	Tyr	Ala	Ile	Trp	Thr	Ala	Gln	Glu	Trp	Ala	Trp
385					390					395					400
Asn	Val	Tyr	Pro	Ser	Thr	Pro	Ile	Ser	Ser	Gly	Val	Val	Val	Gly	Val
				405					410					415	
Leu	Ala	Leu	Thr	Ala	Ala	Leu	Val	Trp	Leu	Gly	Ala	Arg	Glu	Asp	Trp
			420					425					430		
Glu	Pro	Arg	Arg	Val	Leu	Leu	Lys	Gly	Glu	Ala	Ala	Lys	Arg		
		435					440					445			

<210> 132
 <211> 442
 <212> PRT
 <213> Neurospora crassa

<400> 132

Met	Ala	Ala	Pro	Ser	Ser	Arg	Pro	Glu	Ser	Asn	Pro	Pro	Leu	Tyr	Lys
1				5					10					15	
Gln	Ala	Leu	Asp	Phe	Ala	Leu	Asp	Val	Ala	Asn	Gly	Arg	His	Ala	Leu
			20					25					30		
Ser	Lys	Leu	Ile	Pro	Pro	Ala	Leu	Phe	Leu	Val	Asp	Ala	Leu	Leu	Cys
		35					40					45			
Gly	Leu	Ile	Ile	Trp	Lys	Val	Pro	Tyr	Thr	Glu	Ile	Asp	Trp	Ala	Ala
	50					55				60					
Tyr	Met	Glu	Gln	Val	Ser	Gln	Ile	Leu	Ser	Gly	Glu	Arg	Asp	Tyr	Thr
65					70				75					80	
Lys	Val	Arg	Gly	Gly	Thr	Gly	Pro	Leu	Val	Tyr	Pro	Ala	Ala	His	Val
				85					90					95	
Tyr	Ile	Tyr	Thr	Gly	Leu	Tyr	His	Leu	Thr	Asp	Glu	Gly	Arg	Asn	Ile
			100					105					110		
Leu	Leu	Ala	Gln	Gln	Leu	Phe	Ala	Gly	Leu	Tyr	Met	Val	Thr	Leu	Ala
		115					120					125			
Val	Val	Met	Gly	Cys	Tyr	Trp	Gln	Ala	Lys	Ala	Pro	Pro	Tyr	Leu	Phe
		130				135					140				
Pro	Leu	Leu	Thr	Leu	Ser	Lys	Arg	Leu	His	Ser	Ile	Phe	Val	Leu	Arg
145					150					155					160
Cys	Phe	Asn	Asp	Cys	Phe	Ala	Val	Leu	Phe	Leu	Trp	Leu	Ala	Ile	Phe
				165					170					175	
Phe	Phe	Gln	Arg	Arg	Asn	Trp	Gln	Ala	Gly	Ala	Leu	Leu	Tyr	Thr	Leu
			180					185					190		

eolf-seq1

Gly	Leu	Gly	Val	Lys	Met	Thr	Leu	Leu	Leu	Ser	Leu	Pro	Ala	Val	Gly
Ile	Val	Leu	Phe	Leu	Gly	Ser	Gly	Ser	Phe	Val	Thr	Thr	Leu	Gln	Leu
Val	Ala	Thr	Met	Gly	Leu	Val	Gln	Ile	Leu	Ile	Gly	Val	Pro	Phe	Leu
Ala	His	Tyr	Pro	Thr	Glu	Tyr	Leu	Ser	Arg	Ala	Phe	Glu	Leu	Ser	Arg
Gln	Phe	Phe	Phe	Lys	Trp	Thr	Val	Asn	Trp	Arg	Phe	Val	Gly	Glu	Glu
Ile	Phe	Leu	Ser	Lys	Gly	Phe	Ala	Leu	Thr	Leu	Leu	Ala	Leu	His	Val
Leu	Val	Leu	Gly	Ile	Phe	Ile	Thr	Thr	Arg	Trp	Ile	Lys	Pro	Ala	Arg
Lys	Ser	Leu	Val	Gln	Leu	Ile	Ser	Pro	Val	Leu	Leu	Ala	Gly	Lys	Pro
Pro	Leu	Thr	Val	Pro	Glu	His	Arg	Ala	Ala	Ala	Arg	Asp	Val	Thr	Pro
Arg	Tyr	Ile	Met	Thr	Thr	Ile	Leu	Ser	Ala	Asn	Ala	Val	Gly	Leu	Leu
Phe	Ala	Arg	Ser	Leu	His	Tyr	Gln	Phe	Tyr	Ala	Tyr	Val	Ala	Trp	Ser
Thr	Pro	Phe	Leu	Leu	Trp	Arg	Ala	Gly	Leu	His	Pro	Val	Leu	Val	Tyr
Leu	Leu	Trp	Ala	Val	His	Glu	Trp	Ala	Trp	Asn	Val	Phe	Pro	Ser	Thr
Pro	Ala	Ser	Ser	Ala	Val	Val	Val	Gly	Val	Leu	Gly	Val	Thr	Val	Ala
Gly	Val	Trp	Phe	Gly	Ala	Arg	Glu	Glu	Trp	Glu	Pro	Gly	Met	Lys	Ser
Ser	Ser	Lys	Lys	Glu	Glu	Ala	Ala	Met	Arg						

<210> 133
 <211> 413
 <212> PRT
 <213> *Aspergillus oryzae*

<400> 133

Met	Glu	Leu	Lys	His	Phe	Ile	His	Glu	Leu	Cys	Leu	Asn	Pro	Arg	His
Thr	Lys	Trp	Ile	Ala	Pro	Leu	Leu	Val	Ile	Gly	Asp	Ala	Phe	Leu	Cys
Ala	Leu	Ile	Ile	Trp	Lys	Ile	Pro	Tyr	Thr	Glu	Ile	Asp	Trp	Thr	Thr
Tyr	Met	Gln	Gln	Ile	Ala	Leu	Tyr	Ile	Ser	Gly	Glu	Arg	Asp	Tyr	Thr
Leu	Ile	Lys	Gly	Ser	Thr	Gly	Pro	Leu	Val	Tyr	Pro	Ala	Ala	His	Val
Tyr	Ser	Tyr	Met	Ala	Leu	Tyr	His	Leu	Thr	Asp	Glu	Gly	Arg	Asp	Ile
Leu	Phe	Gly	Gln	Ile	Leu	Phe	Ala	Val	Leu	Tyr	Leu	Val	Thr	Leu	Ala
Val	Val	Met	Val	Cys	Tyr	Arg	Gln	Ser	Gly	Ala	Pro	Pro	Tyr	Leu	Phe
Pro	Leu	Leu	Val	Leu	Ser	Lys	Arg	Leu	His	Ser	Val	Phe	Val	Leu	Arg
Leu	Phe	Asn	Asp	Gly	Leu	Ala	Val	Cys	Ala	Met	Trp	Ile	Ala	Ile	Leu
Leu	Phe	Gln	Asn	Lys	Lys	Trp	Thr	Ala	Gly	Val	Thr	Ala	Trp	Thr	Val
Gly	Val	Gly	Ile	Lys	Met	Thr	Leu	Leu	Leu	Leu	Ala	Pro	Ala	Ile	Ala
Val	Val	Thr	Val	Leu	Ser	Leu	Ser	Leu	Val	Pro	Ser	Ile	Arg	Leu	Gly
Ile	Leu	Ala	Leu	Leu	Ile	Gln	Val	Leu	Leu	Ala	Ile	Pro	Phe	Leu	Gln

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Gly	Asn	Pro	Ile	Gly	Tyr	Val	Ala	Arg	Ala	Phe	Glu	Leu	Thr	Arg	Gln
225				230					235						240
Phe	Met	Phe	Lys	Trp	Thr	Val	Asn	Trp	Arg	Phe	Val	Gly	Glu	Asp	Leu
			245						250					255	
Phe	Leu	Ser	Lys	Gln	Phe	Ser	Leu	Ala	Leu	Leu	Gly	Leu	His	Ile	Phe
			260					265					270		
Leu	Leu	Gly	Leu	Phe	Val	Thr	Thr	Gly	Trp	Leu	Arg	Pro	Ser	Gly	Ser
		275					280					285			
Asn	Val	Pro	Asp	Phe	Leu	Arg	Ser	Leu	Leu	Gln	Gly	Arg	Gln	Arg	Thr
	290					295				300					
Val	Val	Leu	Ser	Lys	Ser	Phe	Ile	Met	Thr	Val	Met	Leu	Thr	Ser	Leu
305				310						315					320
Ala	Ile	Gly	Leu	Leu	Cys	Ala	Arg	Ser	Leu	His	Tyr	Gln	Phe	Phe	Ala
				325					330					335	
Tyr	Leu	Ser	Trp	Ala	Thr	Pro	Cys	Leu	Leu	Trp	Arg	Ala	Arg	Leu	His
			340					345					350		
Pro	Ile	Leu	Ile	Tyr	Ala	Ile	Trp	Ala	Leu	Gln	Glu	Trp	Ala	Trp	Asn
		355					360					365			
Val	Tyr	Pro	Ser	Thr	Asn	Ala	Ser	Ser	Ser	Val	Val	Val	Phe	Ser	Leu
	370					375					380				
Ala	Val	Gln	Val	Phe	Gly	Val	Leu	Leu	Asn	Ser	Arg	Asn	Ala	Leu	Ser
385					390					395					400
Asp	Ala	Pro	Pro	Arg	Arg	Lys	Gly	Lys	Glu	His	Ile	Gln			
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<210> 134
 <211> 411
 <212> PRT
 <213> Neosartorya fischeri

<400> 134

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Thr	Arg	Trp	Val	Ala	Pro	Leu	Leu	Ile	Leu	Gly	Asp	Ala	Val	Leu	Cys
			20					25					30		
Ala	Leu	Ile	Ile	Trp	Lys	Val	Pro	Tyr	Thr	Glu	Ile	Asp	Trp	Thr	Thr
		35					40					45			
Tyr	Met	Gln	Gln	Ile	Ser	Leu	Tyr	Ile	Ser	Gly	Glu	Arg	Asp	Tyr	Thr
	50					55				60					
Leu	Ile	Lys	Gly	Ser	Thr	Gly	Pro	Leu	Val	Tyr	Pro	Ala	Ala	His	Val
65					70					75				80	
Tyr	Ile	Phe	Asn	Ile	Leu	Tyr	His	Leu	Thr	Asp	Glu	Gly	Arg	Asp	Ile
			85						90				95		
Phe	Leu	Gly	Gln	Ile	Leu	Phe	Ala	Ile	Leu	Tyr	Leu	Ala	Thr	Leu	Thr
			100					105					110		
Val	Ala	Met	Thr	Cys	Tyr	Arg	Gln	Ala	Gly	Ala	Pro	Pro	Tyr	Leu	Leu
		115					120					125			
Val	Pro	Leu	Val	Leu	Ser	Lys	Arg	Leu	His	Ser	Val	Phe	Met	Leu	Arg
	130					135					140				
Leu	Phe	Asn	Asp	Gly	Phe	Ala	Ala	Tyr	Ala	Met	Trp	Val	Ser	Ile	Leu
145					150					155					160
Leu	Phe	Met	Asn	Lys	Lys	Trp	Thr	Ala	Gly	Ala	Ile	Val	Trp	Ser	Thr
				165					170					175	
Gly	Val	Gly	Ile	Lys	Met	Thr	Leu	Leu	Leu	Ala	Pro	Ala	Ile	Ala	
			180					185					190		
Val	Val	Leu	Val	Leu	Ser	Leu	Ser	Leu	Gly	Pro	Ser	Met	Gln	Leu	Gly
		195					200					205			
Phe	Leu	Ala	Val	Leu	Ile	Gln	Val	Leu	Phe	Gly	Ile	Pro	Phe	Leu	Gln
	210					215					220				
Asn	Asn	Pro	Ala	Gly	Tyr	Val	Ser	Arg	Ala	Phe	Glu	Leu	Thr	Arg	Gln
225					230					235					240
Phe	Met	Phe	Lys	Trp	Thr	Val	Asn	Trp	Arg	Phe	Val	Gly	Glu	Glu	Leu
			245						250					255	
Phe	Leu	Ser	Arg	Lys	Phe	Ser	Leu	Ala	Leu	Leu	Ala	Leu	His	Ile	Leu
			260					265					270		
Leu	Leu	Gly	Leu	Phe	Val	Ala	Thr	Val	Trp	Leu	Lys	Pro	Ser	Gly	Ser
		275					280					285			

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Asp	Leu	Pro	Ser	Phe	Leu	Gln	Arg	Leu	Ile	Gln	Arg	Arg	Tyr	Arg	Thr
290						295				300					
Ala	Ser	Leu	Ser	Lys	Ser	Phe	Ile	Met	Thr	Ala	Met	Leu	Ser	Ser	Leu
305					310					315					320
Ala	Ile	Gly	Leu	Leu	Cys	Ala	Arg	Ser	Leu	His	Tyr	Gln	Phe	Phe	Ala
				325					330					335	
Tyr	Leu	Ala	Cys	Ala	Thr	Pro	Phe	Leu	Trp	Gln	Ala	Gly	Phe	His	
			340					345				350			
Pro	Ile	Leu	Val	Tyr	Val	Val	Trp	Val	Ala	Gln	Glu	Trp	Ala	Trp	Asn
		355					360					365			
Thr	Tyr	Pro	Ser	Thr	Asn	Ala	Ser	Ser	Leu	Val	Val	Ile	Leu	Ser	Leu
	370				375						380				
Ala	Ala	Gln	Val	Phe	Gly	Val	Leu	Gly	Asn	Ser	Phe	Ser	Arg	Lys	His
385					390					395					400
Leu	Asp	Gln	Ser	Ser	Gln	Lys	Glu	His	Leu	Gln					
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<210> 135
 <211> 413
 <212> PRT
 <213> Aspergillus niger

<400> 135

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Thr	Lys	Trp	Met	Ala	Pro	Leu	Leu	Val	Leu	Gly	Asp	Ala	Phe	Leu	Cys
			20					25					30		
Ala	Leu	Ile	Ile	Trp	Lys	Val	Pro	Tyr	Thr	Glu	Ile	Asp	Trp	Ala	Thr
		35					40					45			
Tyr	Met	Gln	Gln	Ile	Ser	Leu	Tyr	Leu	Ser	Gly	Glu	Arg	Asp	Tyr	Thr
	50					55					60				
Leu	Ile	Arg	Gly	Ser	Thr	Gly	Pro	Leu	Val	Tyr	Pro	Ala	Ala	His	Val
65					70					75				80	
Tyr	Ser	Tyr	Thr	Ala	Leu	Tyr	His	Leu	Thr	Asp	Glu	Gly	Arg	Asp	Ile
				85					90					95	
Phe	Phe	Gly	Gln	Ile	Leu	Phe	Ala	Val	Leu	Tyr	Leu	Ile	Thr	Leu	Val
			100					105					110		
Val	Val	Leu	Cys	Cys	Tyr	Arg	Gln	Ser	Gly	Ala	Pro	Pro	Tyr	Leu	Leu
		115					120					125			
Pro	Leu	Leu	Val	Leu	Ser	Lys	Arg	Leu	His	Ser	Val	Tyr	Val	Leu	Arg
	130					135					140				
Leu	Phe	Asn	Asp	Gly	Leu	Ala	Ala	Leu	Ala	Met	Trp	Val	Ala	Ile	Leu
145					150					155					160
Leu	Phe	Met	Asn	Arg	Lys	Trp	Thr	Ala	Ala	Val	Ala	Val	Trp	Ser	Thr
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Gly	Val	Ala	Ile	Lys	Met	Thr	Leu	Leu	Leu	Ala	Pro	Ala	Ile	Ala	
			180					185					190		
Val	Val	Thr	Val	Leu	Ser	Leu	Ser	Leu	Gly	Pro	Ser	Val	Gly	Leu	Gly
		195					200					205			
Val	Leu	Ala	Val	Leu	Val	Gln	Val	Leu	Leu	Ala	Ile	Pro	Phe	Leu	Gln
	210					215					220				
Asn	Asn	Pro	Ala	Gly	Tyr	Leu	Ser	Arg	Ala	Phe	Glu	Leu	Thr	Arg	Gln
225					230					235					240
Phe	Met	Phe	Lys	Trp	Thr	Val	Asn	Trp	Arg	Phe	Val	Gly	Glu	Glu	Val
			245						250					255	
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			260					265					270		
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		275					280					285			
Ser	Leu	Pro	Ala	Phe	Ile	Arg	Asn	Leu	Leu	Ala	Gly	Arg	His	Arg	Thr
	290					295					300				
Val	Ser	Leu	Pro	Lys	Pro	Tyr	Ile	Met	Ser	Val	Met	Leu	Ser	Ser	Leu
305					310					315					320
Thr	Val	Gly	Leu	Leu	Cys	Ala	Arg	Ser	Leu	His	Tyr	Gln	Phe	Phe	Ala
				325					330					335	
Tyr	Leu	Ser	Trp	Ala	Thr	Pro	Phe	Leu	Trp	Arg	Ala	Gly	Phe	His	
			340					345				350			

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Pro	Ile	Leu	Leu	Tyr	Leu	Ile	Trp	Ala	Met	Gln	Glu	Trp	Ala	Trp	Asn
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Thr	Phe	Pro	Ser	Thr	Asn	Leu	Ser	Ser	Ile	Ile	Val	Val	Leu	Ser	Leu
	370				375					380					
Ala	Thr	Gln	Ser	Phe	Gly	Val	Leu	Ala	Asn	Ser	Ala	Ser	Ala	Phe	Tyr
385					390				395						400
Thr	Met	Arg	Ser	Asn	Pro	Ser	Gly	Lys	Glu	His	Asn	Gln			
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<210> 136
 <211> 357
 <212> PRT
 <213> Magnaporthe oryzae

<400> 136

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			20					25					30		
Met	Leu	Leu	Ala	Phe	Asp	Gly	Leu	Leu	Cys	Gly	Leu	Ile	Ile	Lys	Lys
		35					40					45			
Val	Pro	Ser	Cys	Tyr	Arg	Lys	Ala	Lys	Val	Pro	Pro	Tyr	Val	Leu	Pro
	50					55				60					
Leu	Leu	Val	Leu	Ser	Lys	Arg	Leu	His	Ser	Ile	Phe	Val	Leu	Arg	Cys
65					70				75					80	
Phe	Asn	Asp	Cys	Phe	Ala	Val	Leu	Phe	Phe	Trp	Leu	Ala	Ile	Tyr	Cys
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Phe	Gln	Arg	Arg	Ala	Trp	Ser	Leu	Gly	Gly	Val	Phe	Tyr	Ser	Phe	Gly
			100					105					110		
Leu	Gly	Ile	Lys	Met	Thr	Val	Leu	Leu	Ser	Leu	Pro	Ala	Val	Gly	Val
		115					120					125			
Ile	Leu	Leu	Leu	Gly	Arg	Gly	Phe	Gly	Gly	Ala	Leu	Asn	Val	Ala	Ser
	130					135					140				
Ile	Met	Gly	Gln	Leu	Gln	Val	Ala	Ile	Gly	Leu	Pro	Phe	Leu	Ser	Lys
145					150				155						160
Asn	Ala	Trp	Gly	Tyr	Leu	Ser	Arg	Ala	Phe	Glu	Leu	Ser	Arg	Gln	Phe
				165					170					175	
Met	Phe	Lys	Trp	Thr	Val	Asn	Trp	Arg	Phe	Val	Gly	Glu	Glu	Thr	Phe
			180					185					190		
Leu	Ser	Lys	Pro	Phe	Ala	Ile	Thr	Leu	Leu	Ala	Leu	His	Ala	Ser	Val
		195					200					205			
Leu	Leu	Ala	Phe	Val	Thr	Lys	Arg	Trp	Leu	Lys	Pro	Ala	Ser	Lys	Ser
		210				215					220				
Ile	Gly	Gly	Leu	Ile	Ala	Pro	Leu	Leu	Ser	Gly	Arg	Pro	Ile	Phe	Thr
225					230				235					240	
Ala	Glu	Glu	Ala	Gln	Thr	Ala	Ala	Arg	Ala	Val	Thr	Pro	Glu	Tyr	Val
				245					250					255	
Met	Thr	Thr	Met	Leu	Thr	Ala	Asn	Ile	Val	Gly	Met	Leu	Phe	Ala	Arg
			260					265					270		
Ser	Leu	His	Tyr	Gln	Phe	Tyr	Ala	Tyr	Leu	Ala	Trp	Ser	Thr	Pro	Tyr
		275					280					285			
Leu	Leu	Trp	Arg	Ser	Gly	Ile	His	Pro	Leu	Leu	Gln	Trp	Gly	Leu	Trp
		290				295					300				
Ala	Leu	Gln	Glu	Trp	Ala	Trp	Asn	Val	Tyr	Pro	Ser	Thr	Pro	Val	Ser
305					310					315					320
Ser	Gly	Val	Val	Val	Gly	Val	Met	Ala	Ile	Thr	Val	Gly	Ala	Val	Met
				325					330					335	
Val	Gly	Ala	Lys	Ala	Glu	Phe	Arg	Pro	Gln	Val	Pro	Val	Ala	Lys	Lys
			340					345					350		
Val	Glu	Ala	Lys	Arg											
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<210> 137
 <211> 406
 <212> PRT
 <213> Schizosaccharomyces pombe

eo1f-seq1

<400> 137

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Leu Glu Ile Pro Phe Val Phe Ala Ile Ile Ser Lys Val Pro Tyr Thr
 35      40      45
Glu Ile Asp Trp Ile Ala Tyr Met Glu Gln Val Asn Ser Phe Leu Leu
 50      55      60
Gly Glu Arg Asp Tyr Lys Ser Leu Val Gly Cys Thr Gly Pro Leu Val
 65      70      75      80
Tyr Pro Gly Gly His Val Phe Leu Tyr Thr Leu Leu Tyr Tyr Leu Thr
 85      90      95
Asp Gly Gly Thr Asn Ile Val Arg Ala Gln Tyr Ile Phe Ala Phe Val
100      105      110
Tyr Trp Ile Thr Thr Ala Ile Val Gly Tyr Leu Phe Lys Ile Val Arg
115      120      125
Ala Pro Phe Tyr Ile Tyr Val Leu Leu Ile Leu Ser Lys Arg Leu His
130      135      140
Ser Ile Phe Ile Leu Arg Leu Phe Asn Asp Gly Phe Asn Ser Leu Phe
145      150      155      160
Ser Ser Leu Phe Ile Leu Ser Ser Cys Lys Lys Trp Val Arg Ala
165      170      175
Ser Ile Leu Leu Ser Val Ala Cys Ser Val Lys Met Ser Ser Leu Leu
180      185      190
Tyr Val Pro Ala Tyr Leu Val Leu Leu Leu Gln Ile Leu Gly Pro Lys
195      200      205
Lys Thr Trp Met His Ile Phe Val Ile Ile Ile Val Gln Ile Leu Phe
210      215      220
Ser Ile Pro Phe Leu Ala Tyr Phe Trp Ser Tyr Trp Thr Gln Ala Phe
225      230      235      240
Asp Phe Gly Arg Ala Phe Asp Tyr Lys Trp Thr Val Asn Trp Arg Phe
245      250      255
Ile Pro Arg Ser Ile Phe Glu Ser Thr Ser Phe Ser Thr Ser Ile Leu
260      265      270
Phe Leu His Val Ala Leu Leu Val Ala Phe Thr Cys Lys His Trp Asn
275      280      285
Lys Leu Ser Arg Ala Thr Pro Phe Ala Met Val Asn Ser Met Leu Thr
290      295      300
Leu Lys Pro Leu Pro Lys Leu Gln Leu Ala Thr Pro Asn Phe Ile Phe
305      310      315      320
Thr Ala Leu Ala Thr Ser Asn Leu Ile Gly Ile Leu Cys Ala Arg Ser
325      330      335
Leu His Tyr Gln Phe Tyr Ala Trp Phe Ala Trp Tyr Ser Pro Tyr Leu
340      345      350
Cys Tyr Gln Ala Ser Phe Pro Ala Pro Ile Val Ile Gly Leu Trp Met
355      360      365
Leu Gln Glu Tyr Ala Trp Asn Val Phe Pro Ser Thr Lys Leu Ser Ser
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<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthesized Construct

<400> 138

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<210> 139

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<213> Artificial Sequence

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<223> Synthesized Construct

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<212> DNA

<213> Artificial Sequence

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<223> Synthesized Construct

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<212> DNA
<213> Trichoderma reesei
<400> 142
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<210> 143
<211> 2487
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthesized Construct

<400> 143

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<210> 144

<211> 65

<212> DNA

<213> Trichoderma reesei

<400> 144

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<210> 145

<211> 2493

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthesized Construct

<400> 145

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<400> 147
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