

SEQUENCE LISTING

<110> NewSouth Innovations Pty Limited

<120> Diagnosis and Treatment of Autoimmunity

<130> P081481C

<160> 29

<170> PatentIn version 3.5

<210> 1

<211> 338

<212> PRT

<213> Homo sapiens (lumican GenBank P51884)

<400> 1

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

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 1 5

<210> 3
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 Lys Arg Phe Asn Ala Leu Gln Cys Leu
 1 5

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 <213> Artificial Sequence
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 <223> human lumican protein fragment with single amino acid substitution
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 1 5

<210> 5
 <211> 348
 <212> PRT
 <213> Chlamydia trachomatis (fructose biphosphate aldolase protein)
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 35 40 45
 Leu Arg Ser Leu Gln Gln Met Phe Ser Cys Gly Arg Leu Gly Gly Thr
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 Gly Tyr Leu Ser Ile Leu Pro Val Asp Gln Gly Val Glu His Thr Ala
 65 70 75 80
 Gly Ala Ser Phe Ala Lys Asn Pro Met Tyr Phe Asp Pro Glu Asn Ile
 85 90 95
 Val Arg Leu Ala Met Glu Ala Gly Cys Ser Ala Val Ala Ser Ser Tyr
 100 105 110
 Gly Val Leu Ser Ile Leu Ala Arg Arg Tyr Ala His Lys Ile Pro Phe
 115 120 125
 Leu Leu Lys Leu Asn His Asn Glu Leu Leu Ser Tyr Pro Thr Thr Tyr
 130 135 140
 His Gln Ile Phe Phe Ser Gln Val Glu Asp Ala Tyr Asn Met Gly Ala
 145 150 155 160
 Val Ala Val Gly Ala Thr Ile Tyr Phe Gly Ser Glu Ser Ser Ser Glu
 165 170 175
 Glu Ile Val Ala Val Ala Glu Ala Phe Ala Arg Ala Arg Glu Leu Gly
 180 185 190
 Leu Ala Thr Val Leu Trp Cys Tyr Leu Arg Asn Pro His Phe Val Val
 195 200 205

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Asn Asn Val Asp Tyr His Thr Ala Ala Asp Leu Thr Gly Gln Ala Asp
 210      215      220
His Leu Gly Ala Thr Leu Gly Ala Asp Ile Val Lys Gln Lys Leu Pro
225      230      235      240
Thr Leu Gln Gly Gly Phe Lys Thr Ile Asn Phe Ser Lys Thr Asp Asp
      245      250      255
Leu Val Tyr Ser Glu Leu Ser Ser Asn His Pro Ile Asp Leu Cys Arg
      260      265      270
Tyr Gln Val Leu Asn Ser Tyr Cys Gly Lys Val Gly Leu Ile Asn Ser
      275      280      285
Gly Gly Pro Ser Gly Gln Asp Asp Phe Ala Glu Ala Val Lys Thr Ala
      290      295      300
Val Ile Asn Lys Arg Ala Gly Gly Met Gly Leu Ile Leu Gly Arg Lys
305      310      315      320
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<210> 6

<211> 792

<212> PRT

<213> Chlamydia trachomatis (OMP85 protein)

<400> 6

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

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290		295		300
Tyr Cys Pro Asp Lys Ile Trp Thr Gly Ala Gln Lys Ile Arg Ser Ala				
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Tyr Ala Arg Tyr Gly Tyr Val Asn Thr Asn Val Asp Val Ser Phe Ser				320
		325		330
				335
Ala His Pro Thr Leu Pro Val Tyr Asp Val Thr Tyr Arg Val Ser Glu				
		340		345
				350
Gly Ser Ser Tyr Lys Ile Gly Leu Ile Lys Ile Lys Gly Asn Thr His				
		355		360
				365
Thr Lys His Asp Val Ile Leu His Glu Thr Ser Leu Phe Pro Gly Asp				
		370		375
				380
Thr Phe Asp Arg Leu Lys Leu Glu Gly Thr Glu Thr Arg Leu Arg Asn				
385		390		395
				400
Thr Gly Tyr Phe Lys Ser Val Ser Val Tyr Thr Val His Ser Gln Leu				
		405		410
				415
Asp Pro Leu Asp Ser Asn Asp Leu Tyr Arg Asp Val Phe Ile Glu Val				
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				430
Lys Glu Thr Glu Thr Gly Asn Leu Gly Leu Phe Leu Gly Phe Ser Ser				
		435		440
				445
Ile Asp His Leu Phe Gly Gly Ala Glu Ile Ala Glu Ser Asn Phe Asp				
		450		455
				460
Leu Phe Gly Ala Arg Asn Phe Leu Lys Lys Gly Phe Lys Ser Leu Arg				
465		470		475
				480
Gly Gly Gly Glu Tyr Leu Phe Leu Lys Ala Asn Leu Gly Asp Lys Val				
		485		490
				495
Thr Asp Tyr Thr Val Lys Trp Thr Lys Pro His Phe Leu Asn Thr Pro				
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				510
Trp Ile Leu Gly Val Glu Leu Asp Lys Ser Ile Asn Lys Ala Leu Ser				
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				525
Lys Asp Tyr Ser Val Asp Thr Tyr Gly Gly Asn Ile Ser Thr Thr Tyr				
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				540
Ile Leu Asn Asp Lys Leu Lys Tyr Gly Met Tyr Tyr Arg Gly Ser Gln				
545		550		555
				560
Thr Ser Leu Ser Leu Arg Lys Lys Thr Ser Ser Ser Asn Arg Pro Gly				
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				575
Pro Asp Leu Asp Ser Asn Lys Gly Phe Val Ser Ala Ala Gly Leu Asn				
		580		585
				590
Val Leu Tyr Asp Ser Ile Asp Asn Pro Arg Lys Pro Thr Met Gly Ile				
		595		600
				605
Arg Ser Ser Leu Asn Phe Glu Leu Ser Gly Leu Gly Gly Thr Tyr Gln				
		610		615
				620
Phe Thr Lys Leu Thr Ala Ser Gly Ser Ile Tyr Arg Leu Leu Thr Lys				
625		630		635
				640
Lys Gly Val Leu Lys Val Arg Ala Glu Ala Lys Phe Ile Lys Pro Phe				
		645		650
				655
Gly Thr Thr Thr Ala Gln Gly Ile Pro Val Ser Glu Arg Phe Phe Leu				
		660		665
				670
Gly Gly Glu Thr Thr Val Arg Gly Tyr Lys Pro Phe Ile Ile Gly Pro				
		675		680
				685
Lys Phe Ser Pro Thr Glu Pro Gln Gly Gly Leu Ser Ser Leu Leu Leu				
		690		695
				700
Thr Glu Glu Phe Gln Tyr Pro Leu Ile Ser Gln Pro Cys Ile Asn Ala				
705		710		715
				720
Phe Val Phe Leu Asp Ser Gly Phe Ile Gly Ile Glu Glu Tyr Thr Ile				
		725		730
				735
Arg Leu Lys Asp Leu Cys Ser Ser Ala Gly Phe Gly Leu Arg Phe Asp				
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				750
Met Met Asn Asn Val Pro Ile Met Leu Gly Trp Gly Trp Pro Phe Arg				
		755		760
				765
Pro Thr Glu Ile Leu Asn Asn Glu Lys Ile Asp Val Ser Gln Arg Phe				
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				780

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<210> 7

<211> 497

<212> PRT

<213> Chlamydia trachomatis (serine protease do-like protein)

<400> 7

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

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Gly	Gln	Leu	Ile	Leu	Ala	Val	Asn	Arg	Gln	Arg	Val	Ala	Ser	Val	Glu		
	450					455					460						
Glu	Leu	Asn	Gln	Val	Leu	Lys	Asn	Ser	Lys	Gly	Glu	Asn	Val	Leu	Leu		
465					470					475					480		
Met	Val	Ser	Gln	Gly	Asp	Val	Val	Arg	Phe	Ile	Val	Leu	Lys	Ser	Asp		
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Glu

<210> 8

<211> 674

<212> PRT

<213> Emericella nidulans/Aspergillus nidulans(uncharacterised protein)

<400> 8

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			20					25					30				
Arg	Trp	Lys	Ala	Val	Phe	Glu	Arg	Leu	Leu	Tyr	Arg	Arg	Leu	His	Val		
		35					40					45					
Leu	Ser	Asn	Asp	Leu	Gly	Val	Ser	Val	Gly	Asp	Leu	Ser	Leu	Thr	Arg		
	50					55					60						
Phe	Gln	Ala	Leu	Thr	Ser	Ala	Ala	Gly	Thr	Ala	Arg	Arg	Ser	Tyr	Ile		
65					70					75					80		
Lys	His	Leu	Ile	Tyr	His	Ile	Val	Leu	Pro	Tyr	Asp	Val	Gly	Ala	Trp		
				85					90					95			
Pro	Gly	Asp	Thr	Pro	Asp	Gly	Glu	Ala	Asn	Pro	Phe	Gln	Lys	Ala	Asn		
			100					105					110				
Asp	Ala	Val	Phe	Gly	Val	Ala	Val	Ile	Ser	Leu	Phe	Thr	Ala	Leu	Leu		
		115					120					125					
Ser	Trp	Glu	Asn	Thr	Arg	Phe	Lys	Leu	Thr	Phe	Gln	Leu	Val	Gly	Cys		
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Leu	Asp	Ser	Tyr	Glu	Leu	Gly	Met	Glu	Glu	Thr	Ser	Val	Asp	Gly	Leu		
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Glu	Glu	Glu	Ser	Ile	Pro	Pro	Pro	Tyr	Gln	Ala	Arg	Leu	Pro	Ser	Ile		
				165					170					175			
Glu	Leu	Phe	Glu	Leu	Pro	Glu	Ile	Glu	Ser	Ile	Asp	Lys	Phe	Phe	Val		
			180					185					190				
Ser	Asp	Tyr	Leu	Leu	Gly	Ser	Val	Gly	Ile	Gly	Asn	Arg	Thr	Ala	Ile		
		195					200					205					
Glu	Ile	Ala	His	Cys	Phe	Pro	Lys	Leu	Gln	Ser	Leu	Glu	Leu	Ser	Leu		
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Ile	Thr	His	Asp	Asp	Pro	Asp	Phe	Gln	Ile	Asn	Ser	Arg	Lys	Glu	Leu		
225					230					235					240		
Ile	Gln	Gly	Ile	Lys	Lys	Leu	Pro	Pro	Thr	Leu	Lys	Thr	Phe	Arg	Tyr		
				245					250					255			
Ser	Glu	His	Tyr	Ser	Glu	Phe	Ile	Asp	Arg	Glu	Leu	Gln	Ser	Val	Asp		
			260					265					270				
Phe	Leu	Leu	Gly	Glu	Ser	Asp	Met	Leu	Thr	Pro	Thr	Leu	Arg	Glu	Phe		
	275						280					285					
Ser	Leu	Gln	Leu	Arg	Glu	Leu	Lys	Leu	Ile	Gly	Val	Ala	Ile	Ala	Pro		
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Asp	Leu	Leu	Trp	Pro	Leu	Asp	Gln	Met	Gly	Glu	Pro	Ser	Ser	Ser	Thr		
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Thr	Glu	Val	Phe	Trp	Pro	His	Leu	Glu	Thr	Ile	Glu	Leu	Cys	Pro	Ala		
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Gly Met Leu Arg Asn Ser Gly Ala Pro Leu His Gly Gln Leu Arg Gly
385      390      395      400
Gly His Glu Glu Lys Leu Ala Thr Arg Glu Leu Leu Ser Ser Lys Ala
      405      410      415
His Leu Leu Arg Gly Leu Gly Asn Cys Ala Arg Ser Phe Glu Glu Ser
      420      425      430
Gly Leu Thr Ala Arg Ser Ile Arg Ser Arg Ala Gln Leu Ala Lys Gln
      435      440      445
Tyr Arg Ala Arg His Leu Leu Cys Thr Arg Asp Thr Asp Asp Val Ser
450      455      460
Lys Thr Asp His Lys Cys Ser Glu Asp Tyr Thr Leu Ser Thr Ser Glu
465      470      475      480
Ser Gly Asp Leu Arg Tyr His Gln Arg Ala Val Ser Arg Arg Ala Ser
      485      490      495
Ser Cys Leu Lys Ser Thr Ile Gly Glu Met Lys Ile Ile Val Cys Val
      500      505      510
Leu Asn Pro Gln Gly Glu Thr Asp Gln Ala Gly Val Pro Val Val Leu
      515      520      525
Asp Leu Gln Phe Val Asp Val Ser Thr Cys Gln Pro Ile Glu Gly Ile
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Tyr Ala Glu Thr Trp Asn Cys Asn Ala Thr Gly Val Tyr Ser Gly Ala
545      550      555      560
Gln Gly Asn Gly Asn Gly Asn Ser Glu Asp Asp Ser Ile Leu Gln Glu
      565      570      575
Thr Phe Leu Arg Arg Val Ser Lys Thr Gly Glu Glu Gly Val Val Thr
      580      585      590
Phe Asn Thr Leu Phe Pro Gly His Tyr Ala Gly Arg Ala Thr His Tyr
      595      600      605
His Val Leu Ala His Leu Asp Ala Ala Leu Leu Glu Asn Asn Thr Leu
      610      615      620
Thr Gly Gly Ser Val Pro His Ile Gly Gln Leu Phe Phe Asp Gln Asp
625      630      635      640
Leu Ile Thr Ala Val Glu Val Thr Ser Pro Tyr Ser Ser Asn Thr Val
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Glu Ile Thr Lys Asn Thr Glu Asp Ser Pro Val Gly Thr Cys Ser Leu
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Ser Ser

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<212> PRT
<213> Homo sapiens (lumican fragment)
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<210> 10
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1      5

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<210> 11
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<212> PRT

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<213> Homo sapiens (lumican fragment)

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Asn Ala Leu Gln Tyr Leu

1 5

<210> 12

<211> 8

<212> PRT

<213> Homo sapiens (lumican fragment)

<400> 12

Lys Arg Phe Asn Ala Leu Gln Tyr

1 5

<210> 13

<211> 7

<212> PRT

<213> Homo sapiens (lumican fragment)

<400> 13

Lys Arg Phe Asn Ala Leu Gln

1 5

<210> 14

<211> 6

<212> PRT

<213> Homo sapiens (lumican fragment)

<400> 14

Lys Arg Phe Asn Ala Leu

1 5

<210> 15

<211> 7

<212> PRT

<213> Homo sapiens (lumican fragment)

<400> 15

Arg Phe Asn Ala Leu Gln Tyr

1 5

<210> 16

<211> 6

<212> PRT

<213> Homo sapiens (lumican fragment)

<400> 16

Arg Phe Asn Ala Leu Gln

1 5

<210> 17

<211> 6

<212> PRT

<213> Homo sapiens (lumican fragment)

<400> 17

Phe Asn Ala Leu Gln Tyr

1 5

<210> 18

<211> 8

<212> PRT

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<400> 18

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substitution
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1 5

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<210> 22
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substitution
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substitution
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<213> Artificial Sequence

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1 5

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<213> Artificial Sequence

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<223> human lumican protein fragment with single amino acid substitution

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Phe Asn Ala Leu Gln Leu Leu

1 5

<210> 26

<211> 6

<212> PRT

<213> Artificial Sequence

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1 5

<210> 27

<211> 8

<212> PRT

<213> Artificial Sequence

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<223> human lumican protein fragment with single amino acid substitution

<400> 27

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1 5

<210> 28

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

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<400> 28

Arg Phe Asn Ala Leu Gln Leu

1 5

<210> 29

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> human lumican protein fragment with single amino acid substitution

<400> 29

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Phe Asn Ala Leu Gln Leu
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<210> 30

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<212> PRT

<213> Homo sapiens (Opticin)

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

<210> 31

<211> 9

<212> PRT

<213> Homo sapiens (Opticin fragment)

<400> 31

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<210> 32

<211> 352

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35 40 45
Pro Pro Ser Phe Pro Thr Ala Leu Tyr Cys Glu Asn Arg Gly Leu Lys
50 55 60
Glu Ile Pro Ala Ile Pro Ser Arg Ile Trp Tyr Leu Tyr Leu Gln Asn
65 70 75 80
Asn Leu Ile Glu Thr Ile Pro Glu Lys Pro Phe Glu Asn Ala Thr Gln
85 90 95
Leu Arg Trp Ile Asn Leu Asn Lys Asn Lys Ile Thr Asn Tyr Gly Ile
100 105 110
Glu Lys Gly Ala Leu Ser Gln Leu Lys Lys Leu Leu Phe Leu Phe Leu
115 120 125
Glu Asp Asn Glu Leu Glu Glu Val Pro Ser Pro Leu Pro Arg Ser Leu
130 135 140
Glu Gln Leu Gln Leu Ala Arg Asn Lys Val Ser Arg Ile Pro Gln Gly
145 150 155 160
Thr Phe Ser Asn Leu Glu Asn Leu Thr Leu Leu Asp Leu Gln Asn Asn
165 170 175
Lys Leu Val Asp Asn Ala Phe Gln Arg Asp Thr Phe Lys Gly Leu Lys
180 185 190
Asn Leu Met Gln Leu Asn Met Ala Lys Asn Ala Leu Arg Asn Met Pro
195 200 205
Pro Arg Leu Pro Ala Asn Thr Met Gln Leu Phe Leu Asp Asn Asn Ser
210 215 220
Ile Glu Gly Ile Pro Glu Asn Tyr Phe Asn Val Ile Pro Lys Val Ala
225 230 235 240
Phe Leu Arg Leu Asn His Asn Lys Leu Ser Asp Glu Gly Leu Pro Ser
245 250 255
Arg Gly Phe Asp Val Ser Ser Ile Leu Asp Leu Gln Leu Ser His Asn
260 265 270
Gln Leu Thr Lys Val Pro Arg Ile Ser Ala His Leu Gln His Leu His
275 280 285
Leu Asp His Asn Lys Ile Lys Ser Val Asn Val Ser Val Ile Cys Pro
290 295 300
Ser Pro Ser Met Leu Pro Ala Glu Arg Asp Ser Phe Ser Tyr Gly Pro
305 310 315 320
His Leu Arg Tyr Leu Arg Leu Asp Gly Asn Glu Ile Lys Pro Pro Ile
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Pro Met Ala Leu Met Thr Cys Phe Arg Leu Leu Gln Ala Val Ile Ile
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<210> 34
<211> 9
<212> PRT
<213> Homo Sapiens (Lumican fragment)

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<400> 34

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 1 5

<210> 35

<211> 9

<212> PRT

<213> Homo Sapiens (Opticin fragment)

<400> 35

Gln Leu Glu Asp Ile Arg Leu Asp Gly
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<210> 36

<211> 9

<212> PRT

<213> Chlamydia trachomatis (2-component regulatory system-sensor histidine kinase fragment)

<400> 36

Pro Leu Asn Leu Arg Ser Ile Asp Leu
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<210> 37

<211> 9

<212> PRT

<213> Chlamydia trachomatis (hypothetical protein CT610 fragment)

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<210> 38

<211> 9

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<213> Chlamydia trachomatis (putative outer membrane protein C fragment)

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Asn Arg Phe Ser Val Ala Tyr Met Leu
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<210> 39

<211> 9

<212> PRT

<213> Artificial Sequence

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<223> human lumican protein fragment with single amino acid substitution

<400> 39

Leu Gln Cys Leu Arg Leu Ser His Asn
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<213> Artificial Sequence

<220>

<223> human lumican protein fragment with single amino acid substitution

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