

# SEQUENCE LISTING

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<170> PatentIn version 3.3

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Ser Asp Ala Arg Ser Ile Leu Leu Thr Gly Tyr Ala Asp Leu Glu Ala  
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Pro Trp Asp Ser Asp Ala Leu Arg Ser Leu Val Gly Glu Val Thr Gln  
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Ala Met Arg Glu Asp Val Arg Val Ser Gly Gln Glu Glu Arg Leu Val  
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Ser Lys Leu Arg Val Ala Trp Thr Tyr Arg Thr Gly Asp Met Ala Leu  
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Tyr Ile Cys Ser Pro His Asn Ile Val Ser Ala Leu Asp Pro Asp Thr  
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Gly Thr Glu Lys Trp Lys Phe Asp Pro His Ala Gln Thr Lys Val Trp  
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Gln Arg Cys Arg Gly Val Gly Tyr Trp His Asp Ser Thr Ala Thr Asp  
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Gly Lys Phe Met Lys Gln Glu Glu Ala Arg Arg Ser Gly Phe Lys Pro  
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Val Arg Ser Met Phe Phe Ser Pro Ala Gly Leu Pro Cys Val Lys Pro  
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Pro Tyr Gly Thr Met Asn Ala Ile Asp Leu Arg Ser Gly Lys Val Lys  
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Val Pro Gly Leu Ala Ile Pro Leu Gly Met Pro Thr Met Ser Gly Pro  
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Tyr Val Arg Ala Leu Asn Thr Asp Thr Gly Glu Val Val Trp Lys Ala  
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Arg Leu Pro Val Ala Ser Gln Ala Ala Pro Met Ser Tyr Met Ser Asp  
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Thr Ser Gly Glu Glu Ala Leu Gly Thr Ile Glu Glu Thr Met Pro Asp  
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Leu Val Val Ala Cys Thr Glu Leu Pro Gly Met Ser Gly Gly Gln Leu  
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Arg	Phe	Arg	Arg	Gln	Ser	Ser	Gly	Glu	Phe	Phe	Glu	Ala	Gly	Ile	Asp
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Asp	Leu	Val	Pro	Ser	Asp	Ile	Ala	Leu	Glu	Ala	Leu	Ala	Met	Arg	Ile
290						295					300				
Arg	Thr	Leu	Ala	Gln	Arg	Arg	Met	Ala	Gln	Asp	Glu	Phe	Arg	Gln	Gln
305					310					315					320
Glu	Ile	Glu	Arg	Gln	Gln	Asn	Ala	Leu	Thr	Leu	Glu	Ala	Ala	Arg	Ala
				325					330					335	
Lys	Ala	Glu	Met	Ala	Glu	Ala	Leu	Ala	Gln	Ala	Asn	Met	Glu	Leu	Ala
			340					345					350		

Arg Thr Asn Glu Arg Leu Leu Gln Ala Gln Ser Lys Leu Val Gln Thr  
355 360 365

Ala Lys Met Ala Ser Leu Gly Glu Leu Val Ala Gly Ile Ala His Glu  
370 375 380

Ile Asn Asn Pro Leu Ala Phe Thr Ile Ala His Ala Asp Thr Val Thr  
385 390 395 400

Arg Thr Leu Lys Arg Leu Gln Gly Val Asn Ala Ser Asp Glu Ala Met  
405 410 415

Ser Leu Thr Lys Lys Gly Met Ser Arg Leu Glu Ser Met Lys Leu Gly  
420 425 430

Leu Gln Arg Ile Gln Asn Leu Val Leu Ser Leu Arg Arg Phe Ser Arg  
435 440 445

Leu Asp Glu Ser Ser Phe Gln Lys Val Asp Val Pro Ala Ala Leu Glu  
450 455 460

Thr Ala Leu Ala Leu Leu Ala His Lys Leu Gly Pro Gly Ile Ile Val  
465 470 475 480

Gln Lys Asp Leu Gln Ala Pro Ala Glu Leu Val Cys Gln Pro Ala Phe  
485 490 495

Leu Asn Gln Val Val Met Asn Ile Ile Ser Asn Ala Ala Asp Ala Leu  
500 505 510

Ala Asp Met Ser Thr Asp Gly Asp Ile Val Arg Gly Arg Ile Val Ile  
515 520 525

Ala Ser Arg Leu Glu Asn Gly Arg Tyr Glu Met Ser Val Ser Asp Asp  
530 535 540

Gly Pro Gly Leu Pro Pro Asp Leu Arg Thr Arg Ile Phe Asp Pro Phe  
545 550 555 560

Phe Thr Thr Lys Pro Val Gly Thr Gly Thr Gly Leu Gly Leu Ala Ile  
565 570 575

Ala Tyr Ser Val Met Glu Ala His Asp Gly Val Ile Glu Val Thr Asp  
580 585 590

Ala Asn Leu Pro Asp Gly Arg Gly Ile Gly Ala Cys Phe Arg Met Ser  
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Leu Pro Val Arg Met Thr Glu Glu Gly Pro Val Ala Thr Gly Arg Ala  
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gagccccgatt gtgaccatgc caggcagatc gccaggttc tgggtcaagga ggggtttgcc 180  
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gaaatcgagc gtcagcagaa tgccctgacg cttgaagccg cgcggggcaa ggcggaaatg 1020



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Arg Ala Val Met Pro Phe Pro Glu Phe Glu Met Pro Met Val Thr Ser
20          25          30

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Asn Met Pro Arg Val Val Leu Val Glu Pro Asp Cys Asp His Ala Arg
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```

Gln Ile Ala Gln Val Leu Val Lys Glu Gly Phe Ala Leu Thr Cys Ala
50          55          60

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Thr Ser Gly Glu Glu Ala Leu Gly Thr Ile Glu Glu Thr Met Pro Asp
65          70          75          80

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Leu Val Val Ala Cys Thr Glu Leu Pro Gly Met Ser Gly Gly Gln Leu  
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Ala Arg Arg Leu Arg Leu Asp Ala Leu Thr Arg Asn Ile Pro Ile Leu  
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Met Leu Thr Glu Asp Ala Ser Pro Gly Val Glu Arg Glu Gly Leu Glu  
115 120 125

Ser Gly Ala Asp Ala Tyr Ile Ser Lys Ser Ala His Pro Asp Leu Met  
130 135 140

Val Leu Arg Met Arg Ala Leu Leu Arg Glu Gly Pro Glu Leu Leu Gln  
145 150 155 160

Val Asp Glu Ala Ser Arg Leu Arg Arg Ala Arg Ile Val Ile Val Asn  
165 170 175

Ser Pro Arg Glu Asp Glu Asp Glu Glu Glu Val Val Glu Asp Val Pro  
180 185 190

Glu Thr Thr Leu Gly Glu Leu Leu Trp Arg Asp Gly His Thr Val Thr  
195 200 205

Ser Ile Glu Arg Ser Asp Asp Leu Ile Glu Gly Gly Trp Leu Arg Gly  
210 215 220

Ala Asp Ser Pro Asp Cys Leu Val Leu Glu Leu Gly Ser Gly Asp Glu  
225 230 235 240

Asp Leu Lys Phe Cys Arg Leu Leu Asp Ala Arg Arg Gln Ala Val Leu  
245 250 255

Glu Ala Gly Gly Ile Pro Phe Arg Thr Leu Gly Ile Val Glu Ala Ser  
260 265 270

Arg Phe Arg Arg Gln Ser Ser Gly Glu Phe Phe Glu Ala Gly Ile Asp  
275 280 285

Asp Leu Val Pro Ser Asp Ile Ala Leu Glu Ala Leu Ala Met Arg Ile  
290 295 300

Arg Thr Leu Ala Gln Arg Arg Met Ala Gln Asp Glu Phe Arg Gln Gln  
305 310 315 320

Glu Ile Glu Arg Gln Gln Asn Ala Leu Thr Leu Glu Ala Ala Arg Ala  
325 330 335

Lys Ala Glu Met Ala Glu Ala Leu Ala Gln Ala Asn Met Glu Leu Ala  
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Arg Thr Asn Glu Arg Leu Leu Gln Ala Gln Ser Lys Leu Val Gln Thr  
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Ala Lys Met Ala Ser Leu Gly Glu Leu Val Ala Gly Ile Ala His Glu  
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Ile Asn Asn Pro Leu Ala Phe Thr Ile Ala His Ala Asp Thr Val Thr  
385 390 395 400

Arg Thr Leu Lys Arg Leu Gln Gly Val Asn Ala Ser Asp Glu Ala Met  
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Ser Leu Thr Lys Lys Gly Met Ser Arg Leu Glu Ser Met Lys Leu Gly  
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Leu Gln Arg Ile Gln Asn Leu Val Leu Ser Leu Arg Arg Phe Ser Arg  
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Leu Asp Glu Ser Ser Phe Gln Lys Val Asp Val Pro Ala Ala Leu Glu  
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Thr Ala Leu Ala Leu Leu Ala His Lys Leu Gly Pro Gly Ile Ile Val  
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Gln Lys Asp Leu Gln Ala Pro Ala Glu Leu Val Cys Gln Pro Ala Phe  
485 490 495

Leu Asn Gln Val Val Met Asn Ile Ile Ser Asn Ala Ala Asp Ala Leu  
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Ala Asp Met Ser Thr Asp Gly Asp Ile Val Arg Gly Arg Ile Val Ile  
515 520 525

Ala Ser Arg Leu Glu Asn Gly Arg Tyr Glu Met Ser Val Ser Asp Asp

530		535		540											
Gly	Pro	Gly	Leu	Pro	Pro	Asp	Leu	Arg	Thr	Arg	Ile	Phe	Asp	Pro	Phe
545					550					555					560
Phe	Thr	Ile	Lys	Pro	Val	Gly	Thr	Gly	Thr	Gly	Leu	Gly	Leu	Ala	Ile
				565					570					575	
Ala	Tyr	Ser	Val	Met	Glu	Ala	His	Asp	Gly	Val	Ile	Glu	Val	Thr	Asp
			580					585					590		
Ala	Asn	Leu	Pro	Asp	Gly	Arg	Gly	Ile	Gly	Ala	Cys	Phe	Arg	Met	Ser
		595					600					605			
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	610					615					620				

Ala  
625

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