

SEQUENCE LISTING

5 <110> MERCK SERONO S.A.
 HELMAN, DANIEL
 BAR-SHIMON, MEIRAV
 TOISTER-ACHITUV, MIRA

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 5 <213> Cricetulus griseus

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 20 20 25 30

Gly Gln Asp Gly Ser Tyr Leu Ala Glu Phe Leu Leu Glu Lys Gly Tyr
 35 40 45

25 Glu Val His Gly Ile Val Arg Arg Ser Ser Ser Phe Asn Thr Gly Arg
 50 55 60

30 Ile Glu His Leu Tyr Lys Asn Pro Gln Ala His Ile Glu Gly Asn Met
 65 70 75 80

Lys Leu His Tyr Gly Asp Leu Thr Asp Ser Thr Cys Leu Val Lys Ile
 35 85 90 95

Ile Asn Glu Val Lys Pro Thr Glu Ile Tyr Asn Leu Gly Ala Gln Ser
 40 100 105 110

His Val Lys Ile Ser Phe Asp Leu Ala Glu Tyr Thr Ala Asp Val Asp
 115 120 125

45 Gly Val Gly Thr Leu Arg Leu Leu Asp Ala Ile Lys Thr Cys Gly Leu
 130 135 140

50 Ile Asn Ser Val Lys Phe Tyr Gln Ala Ser Thr Ser Glu Leu Tyr Gly
 145 150 155 160

Lys Val Gln Glu Ile Pro Gln Lys Glu Thr Thr Pro Phe Tyr Pro Arg
 55 165 170 175

Ser Pro Tyr Gly Ala Ala Lys Leu Tyr Ala Tyr Trp Ile Val Val Asn
 180 185 190

60

Phe Arg Glu Ala Tyr Asn Leu Phe Ala Val Asn Gly Ile Leu Phe Asn
 195 200 205

5 His Glu Ser Pro Arg Arg Gly Ala Asn Phe Val Thr Arg Lys Ile Ser
 210 215 220

10 Arg Ser Val Ala Lys Ile Tyr Leu Gly Gln Leu Glu Cys Phe Ser Leu
 225 230 235 240

15 Gly Asn Leu Asp Ala Lys Arg Asp Trp Gly His Ala Lys Asp Tyr Val
 245 250 255

20 Glu Asp Phe Leu Gln Gly Asp Cys Ser Lys Ala Gln Gln Lys Leu Asn
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Trp Lys Pro Arg Val Ala Phe Asp Glu Leu Val Arg Glu Met Val Gln
 275 280 285

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 20 25 30

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 35 40 45

55 Glu Ile Ser Phe Asp Leu Ala Glu Tyr Thr Ala Asp Val Asp Gly Val
 50 55 60

60 Gly Thr Leu Arg Leu Leu Asp Ala Ile Lys Thr Cys Gly Leu Ile Asn
 65 70 75 80

Ser Val Lys Phe Tyr Gln Ala Ser Thr Ser Glu Leu Tyr Gly Lys Val
 85 90 95

5

Gln Glu Ile Pro Gln Lys Glu Thr Thr Pro Phe Tyr Pro Arg Ser Pro
 100 105 110

10

Tyr Gly Ala Ala Lys Leu Tyr Ala Tyr Trp Ile Val Val Asn Phe Arg
 115 120 125

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Glu Ala Tyr Asn Leu Phe Ala Val Asn Gly Ile Leu Phe Asn His Glu
 130 135 140

20

Ser Pro Arg Arg Gly Ala Asn Phe Val Thr Arg Lys Ile Ser Arg Ser
 145 150 155 160

25

Val Ala Lys Ile Tyr Leu Gly Gln Leu Glu Cys Phe Ser Leu Gly Asn
 165 170 175

30

Leu Asp Ala Lys Arg Asp Trp Gly His Ala Lys Asp Tyr Val Glu Ala
 180 185 190

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Met Trp Leu Met Leu Gln Asn Asp Glu Pro Glu Asp Phe Val Ile Ala
 195 200 205

40

Thr Gly Glu Val His Ser Val Arg Glu Phe Val Glu Lys Ser Phe Met
 210 215 220

45

His Ile Gly Lys Thr Ile Val Trp Glu Gly Lys Asn Glu Asn Glu Val
 225 230 235 240

50

Gly Arg Cys Lys Glu Thr Gly Lys Ile His Val Thr Val Asp Leu Lys
 245 250 255

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Tyr Tyr Arg Pro Thr Glu Val Asp Phe Leu Gln Gly Asp Cys Ser Lys
 260 265 270

60

Ala Gln Gln Lys Leu Asn Trp Lys Pro Arg Val Ala Phe Asp Glu Leu
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Val Arg Glu Met Val Gln Ala Asp Val Glu Leu Met Arg Thr Asn Pro
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Asn Ala
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20 20 25 30

Gly Gln Asp Gly Ser Tyr Leu Ala Glu Phe Leu Leu Glu Lys Gly Tyr
35 40 45

25 Glu Val His Gly Ile Val Arg Arg Ser Ser Ser Phe Asn Thr Gly Arg
50 55 60

30 Ile Glu His Leu Tyr Lys Asn Pro Gln Ala His Ile Glu Gly Asn Met
65 70 75 80

Lys Leu His Tyr Gly Asp Leu Thr Asp Ser Thr Cys Leu Val Lys Ile
35 85 90 95

Ile Asn Glu Val Lys Pro Thr Glu Ile Tyr Asn Leu Gly Ala Gln Ser
40 100 105 110

His Val Lys Ile Ser Phe Asp Leu Ala Glu Tyr Thr Ala Asp Val Asp
115 120 125

45 Gly Val Gly Thr Leu Arg Leu Leu Asp Ala Ile Lys Thr Cys Gly Leu
130 135 140

50 Ile Asn Ser Val Lys Phe Tyr Gln Ala Ser Thr Ser Glu Leu Tyr Gly
145 150 155 160

Lys Val Gln Glu Ile Pro Gln Lys Glu Thr Thr Pro Phe Tyr Pro Arg
55 165 170 175

Ser Pro Tyr Gly Ala Ala Lys Leu Tyr Ala Tyr Trp Ile Val Val Asn
180 185 190
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Phe Arg Glu Ala Tyr Asn Leu Phe Ala Val Asn Gly Ile Leu Phe Asn
 195 200 205

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His Glu Ser Pro Arg Arg Gly Ala Asn Phe Val Thr Arg Lys Ile Ser
 210 215 220

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Arg Ser Val Ala Lys Ile Tyr Leu Gly Gln Leu Glu Cys Phe Ser Leu
 225 230 235 240

15

Gly Asn Leu Asp Ala Lys Arg Asp Trp Gly His Ala Lys Asp Tyr Val
 245 250 255

20

Glu Ala Met Trp Leu Met Leu Gln Asn Asp Glu Pro Glu Asp Phe Val
 260 265 270

25

Ile Ala Thr Gly Glu Val His Ser Val Arg Glu Phe Val Glu Lys Ser
 275 280 285

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Phe Met His Ile Gly Lys Thr Ile Val Trp Glu Gly Lys Asn Glu Asn
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35

Glu Val Gly Arg Cys Lys Glu Thr Gly Lys Ile His Val Thr Val Asp
 305 310 315 320

40

Leu Lys Tyr Tyr Arg Pro Thr Glu Val Asp Phe Leu Gln Gly Asp Cys
 325 330 335

45

Ser Lys Ala Gln Gln Lys Leu Asn Trp Lys Pro Arg Val Ala Phe Asp
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Glu Leu Val Arg Glu Met Val Gln Ala Asp Val Glu Leu Met Arg Thr
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Asn Pro Asn Ala
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 10 aatacaggtc gaattgaaca tttatataag aatccacagg ctcatattga aggaaacatg
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 aagttgcact atggtgacct caccgacagc acctgcctag taaaaatcat caatgaagtc
 300
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 20 420
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 25 aaagtgcaag aaatacccca gaaagagacc acccctttct atccaaggtc gccctatgga
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 5 120
 gaattcctgc tggagaaagg atacgagatt tcctttgact tagcagagta cactgcagat
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 10 gttgatggag ttggcacctt gcggcttctg gatgcaatta agacttgtgg ccttataaat
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 15 cagaaagaga ccaccccttt ctatccaagg tcgccctatg gagcagccaa actttatgcc
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 20 420
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 25 gtagctaaga tttaccttgg acaactggaa tgtttcagtt tgggaaatct ggacgccaaa
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 30 gaaccagagg actttgtcat agctactggg gaagttcata gtgtccgtga atttgttgag
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 10 aatacaggtc gaattgaaca tttatataag aatccacagg ctcatattga aggaaacatg
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 15 aaacctacag agatctacaa tcttgggtgcc cagagccatg tcaagatttc ctttgactta
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 20 420
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 25 aaagtgcaag aaatacccca gaaagagacc acccctttct atccaaggtc gccctatgga
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20 25 30

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Asn Asp His Pro Asp His Ser Ser Arg Glu Leu Ser Lys Ile Leu Ala
35 40 45

20

Lys Leu Glu Arg Leu Lys Gln Gln Asn Glu Asp Leu Arg Arg Met Ala
50 55 60

Glu Ser Leu Arg Ile Pro Glu Gly Pro Ile Asp Gln Gly Thr Ala Thr
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Gly Arg Val Arg Val Leu Glu Glu Gln Leu Val Lys Ala Lys Glu Gln
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Ile Glu Asn Tyr Lys Lys Gln Ala Arg Asn Asp Leu Gly Lys Asp His
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Glu Ile Leu Arg Arg Arg Ile Glu Asn Gly Ala Lys Glu Leu Trp Phe
115 120 125

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Phe Leu Gln Ser Glu Leu Lys Lys Leu Lys Lys Leu Glu Gly Asn Glu
130 135 140

Leu Gln Arg His Ala Asp Glu Ile Leu Leu Asp Leu Gly His His Glu
145 150 155 160

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Arg Ser Ile Met Thr Asp Leu Tyr Tyr Leu Ser Gln Thr Asp Gly Ala
165 170 175

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Gly Glu Trp Arg Glu Lys Glu Ala Lys Asp Leu Thr Glu Leu Val Gln
180 185 190

55

Arg Arg Ile Thr Tyr Leu Gln Asn Pro Lys Asp Cys Ser Lys Ala Arg
195 200 205

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210 215 220

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5 Thr Leu His Pro Asp Ala Ser Ala Asn Phe His Ser Leu Asp Asp Ile
 485 490 495

10 Tyr Tyr Phe Gly Gly Gln Asn Ala His Asn Gln Ile Ala Val Tyr Pro
 500 505 510

15 His Gln Pro Arg Thr Lys Glu Glu Ile Pro Met Glu Pro Gly Asp Ile
 515 520 525

20 Ile Gly Val Ala Gly Asn His Trp Asn Gly Tyr Ser Lys Gly Val Asn
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25 Lys Ile Glu Thr Val Lys Tyr Pro Thr Tyr Pro Glu Ala Glu Lys
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 50 55 60

55 His Val Ile His Leu Ala Ala Met Val Gly Gly Leu Phe Arg Asn Ile
 65 70 75 80

Lys Tyr Asn Leu Asp Phe Trp Arg Lys Asn Val His Ile Asn Asp Asn
 85 90 95

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5	Leu	Ser	Thr	Cys	Ile	Phe	Pro	Asp	Lys	Thr	Thr	Tyr	Pro	Ile	Asp	Glu	
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40	Arg	Leu	Phe	Ile	Trp	Val	Leu	Arg	Glu	Tyr	Asn	Glu	Val	Glu	Pro	Ile	
	225					230					235					240	
45	Ile	Leu	Ser	Val	Gly	Glu	Glu	Asp	Glu	Val	Ser	Ile	Lys	Glu	Ala	Ala	
					245					250					255		
50	Glu	Ala	Val	Val	Glu	Ala	Met	Asp	Phe	Cys	Gly	Glu	Val	Thr	Phe	Asp	
				260					265					270			
55	Ser	Thr	Lys	Ser	Asp	Gly	Gln	Tyr	Lys	Lys	Thr	Ala	Ser	Asn	Gly	Lys	
			275					280						285			
60	Leu	Arg	Ala	Tyr	Leu	Pro	Asp	Phe	Arg	Phe	Thr	Pro	Phe	Lys	Gln	Ala	
		290					295					300					
65	Val	Lys	Glu	Thr	Cys	Ala	Trp	Phe	Thr	Asp	Asn	Tyr	Glu	Gln	Ala	Arg	
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 aagaccacct atcctattga tgaaacaatg atccacaatg gtccacccca cagcagcaat
 60 420

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15 atcctctcag tgggcgagga agatgaagtc tccattaagg aggcagctga ggctgtagtg
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