

12896145
SEQUENCE LISTING

<110> Mediagnost Gesellschaft für Forschung und Herstellung von Diagnostika GmbH
 <120> Method for detecting a Parkinson's Disease and test system
 <130> T/50772WO/AW/MC/kn
 <160> 67
 <170> PatentIn version 3.3
 <210> 1
 <211> 247
 <212> PRT
 <213> Homo sapiens

<220>
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 <222> (1)..(29)

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Met Ala Ser Leu Ser Arg Pro Ser Leu Pro Ser Cys Leu Cys Ser Phe
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Leu Leu Leu Leu Leu Leu Gln Val Ser Ser Ser Tyr Ala Gly Gln Phe
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Arg Val Ile Gly Pro Arg His Pro Ile Arg Ala Leu Val Gly Asp Glu
 35 40 45

Val Glu Leu Pro Cys Arg Ile Ser Pro Gly Lys Asn Ala Thr Gly Met
 50 55 60

Glu Val Gly Trp Tyr Arg Pro Pro Phe Ser Arg Val Val His Leu Tyr
 65 70 75 80

Arg Asn Gly Lys Asp Gln Asp Gly Asp Gln Ala Pro Glu Tyr Arg Gly
 85 90 95

Arg Thr Glu Leu Leu Lys Asp Ala Ile Gly Glu Gly Lys Val Thr Leu
 100 105 110

Arg Ile Arg Asn Val Arg Phe Ser Asp Glu Gly Gly Phe Thr Cys Phe
 115 120 125

Phe Arg Asp His Ser Tyr Gln Glu Glu Ala Ala Met Glu Leu Lys Val
 130 135 140

Glu Asp Pro Phe Tyr Trp Val Ser Pro Gly Val Leu Val Leu Leu Ala
 145 150 155 160

Val Leu Pro Val Leu Leu Leu Gln Ile Thr Val Gly Leu Val Phe Leu
 165 170 175

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Cys Leu Gln Tyr Arg Leu Arg Gly Lys Leu Arg Ala Glu Ile Glu Asn
180 185 190

Leu His Arg Thr Phe Asp Pro His Phe Leu Arg Val Pro Cys Trp Lys
195 200 205

Ile Thr Leu Phe Val Ile Val Pro Val Leu Gly Pro Leu Val Ala Leu
210 215 220

Ile Ile Cys Tyr Asn Trp Leu His Arg Arg Leu Ala Gly Gln Phe Leu
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Glu Glu Leu Arg Asn Pro Phe
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<213> Bos taurus

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<222> (1)..(28)

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Val Ile Gly Pro Gly His Pro Ile Arg Ala Leu Val Gly Asp Glu Val
35 40 45

Glu Leu Pro Cys Arg Ile Ser Pro Gly Lys Asn Ala Thr Gly Met Glu
50 55 60

Val Gly Trp Tyr Arg Pro Pro Phe Ser Arg Val Val His Leu Tyr Arg
65 70 75 80

Asn Gly Lys Asp Gln Asp Glu Glu Gln Ala Pro Glu Tyr Arg Gly Arg
85 90 95

Thr Gln Leu Leu Lys Glu Thr Ile Gly Glu Gly Lys Val Thr Leu Arg
100 105 110

Ile Arg Asn Val Arg Phe Ser Asp Glu Gly Gly Phe Thr Cys Phe Phe
115 120 125

Arg Asp His Ser Tyr Gln Glu Glu Ala Ala Met Glu Leu Lys Val Glu
130 135 140

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Asp Pro Phe Tyr Trp Ile Asn Pro Gly Val Leu Val Leu Ile Ala Val
145 150 155 160

Leu Pro Val Leu Leu Leu Gln Ile Thr Val Gly Leu Val Phe Leu Cys
165 170 175

Leu Gln Arg Arg Leu Arg Gly Lys Leu Trp Ala Glu Ile Glu Asn Leu
180 185 190

His Arg Thr Phe Asp Pro His Phe Leu Met Val Pro Cys Trp Lys Ile
195 200 205

Thr Leu Phe Val Ile Val Pro Val Leu Gly Pro Leu Val Ala Leu Ile
210 215 220

Ile Cys Tyr Asn Trp Leu His Arg Arg Leu Ala Gly Gln Phe Leu Glu
225 230 235 240

Glu Leu Arg Asn Pro Phe
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<222> (1)..(28)

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Leu Leu Leu Leu Leu Gln Leu Ser Cys Ser Tyr Ala Gly Gln Phe Arg
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Val Ile Gly Pro Gly Tyr Pro Ile Arg Ala Leu Val Gly Asp Glu Ala
35 40 45

Glu Leu Pro Cys Arg Ile Ser Pro Gly Lys Asn Ala Thr Gly Met Glu
50 55 60

Val Gly Trp Tyr Arg Ser Pro Phe Ser Arg Val Val His Leu Tyr Arg
65 70 75 80

Asn Gly Lys Asp Gln Asp Ala Glu Gln Ala Pro Glu Tyr Arg Gly Arg
85 90 95

Thr Glu Leu Leu Lys Glu Thr Ile Ser Glu Gly Lys Val Thr Leu Arg
100 105 110

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Ile Gln Asn Val Arg Phe Ser Asp Glu Gly Gly Tyr Thr Cys Phe Phe
115 120 125

Arg Asp His Ser Tyr Gln Glu Glu Ala Ala Met Glu Leu Lys Val Glu
130 135 140

Asp Pro Phe Tyr Trp Val Asn Pro Gly Val Leu Thr Leu Ile Ala Leu
145 150 155 160

Val Pro Thr Ile Leu Leu Gln Val Pro Val Gly Leu Val Phe Leu Phe
165 170 175

Leu Gln His Arg Leu Arg Gly Lys Leu Arg Ala Glu Val Glu Asn Leu
180 185 190

His Arg Thr Phe Asp Pro His Phe Leu Arg Val Pro Cys Trp Lys Ile
195 200 205

Thr Leu Phe Val Ile Val Pro Val Leu Gly Pro Leu Val Ala Leu Ile
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Ile Cys Tyr Asn Trp Leu His Arg Arg Leu Ala Gly Gln Phe Leu Glu
225 230 235 240

Glu Leu Arg Asn Pro Phe
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<213> Rattus norvegicus

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Leu Leu Leu Leu Gln Leu Ser Arg Ser Tyr Ala Gly Gln Phe Arg Val
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Ile Gly Pro Gly His Pro Ile Arg Ala Leu Val Gly Asp Glu Ala Glu
35 40 45

Leu Pro Cys Arg Ile Ser Pro Gly Lys Asn Ala Thr Gly Met Glu Val
50 55 60

Gly Trp Tyr Arg Ser Pro Phe Ser Arg Val Val His Leu Tyr Arg Asn
65 70 75 80

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Gly Lys Asp Gln Asp Ala Glu Gln Ala Pro Glu Tyr Arg Gly Arg Thr
85 90 95

Glu Leu Leu Lys Glu Ser Ile Gly Glu Gly Lys Val Ala Leu Arg Ile
100 105 110

Gln Asn Val Arg Phe Ser Asp Glu Gly Gly Tyr Thr Cys Phe Phe Arg
115 120 125

Asp His Ser Tyr Gln Glu Glu Ala Ala Val Glu Leu Lys Val Glu Asp
130 135 140

Pro Phe Tyr Trp Ile Asn Pro Gly Val Leu Ala Leu Ile Ala Leu Val
145 150 155 160

Pro Met Leu Leu Leu Gln Val Ser Val Gly Leu Val Phe Leu Phe Leu
165 170 175

Gln His Arg Leu Arg Gly Lys Leu Arg Ala Glu Val Glu Asn Leu His
180 185 190

Arg Thr Phe Asp Pro His Phe Leu Arg Val Pro Cys Trp Lys Ile Thr
195 200 205

Leu Phe Val Ile Val Pro Val Leu Gly Pro Leu Val Ala Leu Ile Ile
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Cys Tyr Asn Trp Leu His Arg Arg Leu Ala Gly Gln Phe Leu Glu Glu
225 230 235 240

Leu Arg Asn Pro Phe
245

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<213> Homo sapiens

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Thr Gly Met Glu Val Gly Trp Tyr Arg Pro Pro Phe Ser Arg Val Val
35 40 45

His Leu Tyr Arg Asn Gly Lys Asp Gln Asp Gly Asp Gln Ala Pro Glu
50 55 60

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Tyr Arg Gly Arg Thr Glu Leu Leu Lys Asp Ala Ile Gly Glu Gly Lys
65 70 75 80

Val Thr Leu Arg Ile Arg Asn Val Arg Phe Ser Asp Glu Gly Gly Phe
85 90 95

Thr Cys Phe Phe Arg Asp His Ser Tyr Gln Glu Glu Ala Ala Met Glu
100 105 110

Leu Lys Val Glu Asp Pro Phe Tyr Trp Val Ser Pro Gly Val Leu Val
115 120 125

Leu Leu Ala Val Leu Pro Val Leu Leu Leu Gln Ile Thr Val Gly Leu
130 135 140

Val Phe Leu Cys Leu Gln Tyr Arg Leu Arg Gly Lys Leu Arg Ala Glu
145 150 155 160

Ile Glu Asn Leu His Arg Thr Phe Asp Pro His Phe Leu Arg Val Pro
165 170 175

Cys Trp Lys Ile Thr Leu Phe Val Ile Val Pro Val Leu Gly Pro Leu
180 185 190

Val Ala Leu Ile Ile Cys Tyr Asn Trp Leu His Arg Arg Leu Ala Gly
195 200 205

Gln Phe Leu Glu Glu Leu Arg Asn Pro Phe
210 215

<210> 6
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<212> PRT
<213> Bos taurus

<400> 6

Gly Gln Phe Arg Val Ile Gly Pro Gly His Pro Ile Arg Ala Leu Val
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Gly Asp Glu Val Glu Leu Pro Cys Arg Ile Ser Pro Gly Lys Asn Ala
20 25 30

Thr Gly Met Glu Val Gly Trp Tyr Arg Pro Pro Phe Ser Arg Val Val
35 40 45

His Leu Tyr Arg Asn Gly Lys Asp Gln Asp Glu Glu Gln Ala Pro Glu
50 55 60

Tyr Arg Gly Arg Thr Gln Leu Leu Lys Glu Thr Ile Gly Glu Gly Lys
65 70 75 80

Val Thr Leu Arg Ile Arg Asn Val Arg Phe Ser Asp Glu Gly Gly Phe
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Thr Cys Phe Phe Arg Asp His Ser Tyr Gln Glu Glu Ala Ala Met Glu
100 105 110

Leu Lys Val Glu Asp Pro Phe Tyr Trp Ile Asn Pro Gly Val Leu Val
115 120 125

Leu Ile Ala Val Leu Pro Val Leu Leu Leu Gln Ile Thr Val Gly Leu
130 135 140

Val Phe Leu Cys Leu Gln Arg Arg Leu Arg Gly Lys Leu Trp Ala Glu
145 150 155 160

Ile Glu Asn Leu His Arg Thr Phe Asp Pro His Phe Leu Met Val Pro
165 170 175

Cys Trp Lys Ile Thr Leu Phe Val Ile Val Pro Val Leu Gly Pro Leu
180 185 190

Val Ala Leu Ile Ile Cys Tyr Asn Trp Leu His Arg Arg Leu Ala Gly
195 200 205

Gln Phe Leu Glu Glu Leu Arg Asn Pro Phe
210 215

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<213> Mus musculus

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Gly Gln Phe Arg Val Ile Gly Pro Gly Tyr Pro Ile Arg Ala Leu Val
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Gly Asp Glu Ala Glu Leu Pro Cys Arg Ile Ser Pro Gly Lys Asn Ala
20 25 30

Thr Gly Met Glu Val Gly Trp Tyr Arg Ser Pro Phe Ser Arg Val Val
35 40 45

His Leu Tyr Arg Asn Gly Lys Asp Gln Asp Ala Glu Gln Ala Pro Glu
50 55 60

Tyr Arg Gly Arg Thr Glu Leu Leu Lys Glu Thr Ile Ser Glu Gly Lys
65 70 75 80

Val Thr Leu Arg Ile Gln Asn Val Arg Phe Ser Asp Glu Gly Gly Tyr
85 90 95

Thr Cys Phe Phe Arg Asp His Ser Tyr Gln Glu Glu Ala Ala Met Glu
100 105 110

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Leu Lys Val Glu Asp Pro Phe Tyr Trp Val Asn Pro Gly Val Leu Thr
115 120 125

Leu Ile Ala Leu Val Pro Thr Ile Leu Leu Gln Val Pro Val Gly Leu
130 135 140

Val Phe Leu Phe Leu Gln His Arg Leu Arg Gly Lys Leu Arg Ala Glu
145 150 155 160

Val Glu Asn Leu His Arg Thr Phe Asp Pro His Phe Leu Arg Val Pro
165 170 175

Cys Trp Lys Ile Thr Leu Phe Val Ile Val Pro Val Leu Gly Pro Leu
180 185 190

Val Ala Leu Ile Ile Cys Tyr Asn Trp Leu His Arg Arg Leu Ala Gly
195 200 205

Gln Phe Leu Glu Glu Leu Arg Asn Pro Phe
210 215

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Gly Gln Phe Arg Val Ile Gly Pro Gly His Pro Ile Arg Ala Leu Val
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Gly Asp Glu Ala Glu Leu Pro Cys Arg Ile Ser Pro Gly Lys Asn Ala
20 25 30

Thr Gly Met Glu Val Gly Trp Tyr Arg Ser Pro Phe Ser Arg Val Val
35 40 45

His Leu Tyr Arg Asn Gly Lys Asp Gln Asp Ala Glu Gln Ala Pro Glu
50 55 60

Tyr Arg Gly Arg Thr Glu Leu Leu Lys Glu Ser Ile Gly Glu Gly Lys
65 70 75 80

Val Ala Leu Arg Ile Gln Asn Val Arg Phe Ser Asp Glu Gly Gly Tyr
85 90 95

Thr Cys Phe Phe Arg Asp His Ser Tyr Gln Glu Glu Ala Ala Val Glu
100 105 110

Leu Lys Val Glu Asp Pro Phe Tyr Trp Ile Asn Pro Gly Val Leu Ala
115 120 125

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Leu Ile Ala Leu Val Pro Met Leu Leu Leu Gln Val Ser Val Gly Leu
130 135 140

Val Phe Leu Phe Leu Gln His Arg Leu Arg Gly Lys Leu Arg Ala Glu
145 150 155 160

Val Glu Asn Leu His Arg Thr Phe Asp Pro His Phe Leu Arg Val Pro
165 170 175

Cys Trp Lys Ile Thr Leu Phe Val Ile Val Pro Val Leu Gly Pro Leu
180 185 190

Val Ala Leu Ile Ile Cys Tyr Asn Trp Leu His Arg Arg Leu Ala Gly
195 200 205

Gln Phe Leu Glu Glu Leu Arg Asn Pro Phe
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<212> PRT
<213> Homo sapiens

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Gly Gln Phe Arg Val Ile Gly Pro Arg His Pro Ile Arg Ala Leu Val
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Gly Asp Glu Val Glu Leu Pro Cys Arg Ile Ser Pro Gly Lys Asn Ala
20 25 30

Thr Gly Met Glu Val Gly Trp Tyr Arg Pro Pro Phe Ser Arg Val Val
35 40 45

His Leu Tyr Arg Asn Gly Lys Asp Gln Asp Gly Asp Gln Ala Pro Glu
50 55 60

Tyr Arg Gly Arg Thr Glu Leu Leu Lys Asp Ala Ile Gly Glu Gly Lys
65 70 75 80

Val Thr Leu Arg Ile Arg Asn Val Arg Phe Ser Asp Glu Gly Gly Phe
85 90 95

Thr Cys Phe Phe Arg Asp His Ser Tyr Gln Glu Glu Ala Ala Met Glu
100 105 110

Leu Lys Val Glu Asp Pro Phe Tyr Trp Val Ser Pro Gly
115 120 125

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<212> PRT
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Gly Gln Phe Arg Val Ile Gly Pro Gly Tyr Pro Ile Arg Ala Leu Val
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Gly Asp Glu Ala Glu Leu Pro Cys Arg Ile Ser Pro Gly Lys Asn Ala
20 25 30

Thr Gly Met Glu Val Gly Trp Tyr Arg Ser Pro Phe Ser Arg Val Val
35 40 45

His Leu Tyr Arg Asn Gly Lys Asp Gln Asp Ala Glu Gln Ala Pro Glu
50 55 60

Tyr Arg Gly Arg Thr Glu Leu Leu Lys Glu Thr Ile Ser Glu Gly Lys
65 70 75 80

Val Thr Leu Arg Ile Gln Asn Val Arg Phe Ser Asp Glu Gly Gly Tyr
85 90 95

Thr Cys Phe Phe Arg Asp His Ser Tyr Gln Glu Glu Ala Ala Met Glu
100 105 110

Leu Lys Val Glu Asp Pro Phe Tyr Trp Val Asn Pro Gly
115 120 125

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<213> Rattus norvegicus

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Gly Gln Phe Arg Val Ile Gly Pro Gly His Pro Ile Arg Ala Leu Val
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Gly Asp Glu Ala Glu Leu Pro Cys Arg Ile Ser Pro Gly Lys Asn Ala
20 25 30

Thr Gly Met Glu Val Gly Trp Tyr Arg Ser Pro Phe Ser Arg Val Val
35 40 45

His Leu Tyr Arg Asn Gly Lys Asp Gln Asp Ala Glu Gln Ala Pro Glu
50 55 60

Tyr Arg Gly Arg Thr Glu Leu Leu Lys Glu Ser Ile Gly Glu Gly Lys
65 70 75 80

Val Ala Leu Arg Ile Gln Asn Val Arg Phe Ser Asp Glu Gly Gly Tyr
85 90 95

Thr Cys Phe Phe Arg Asp His Ser Tyr Gln Glu Glu Ala Ala Val Glu
100 105 110

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Leu Lys Val Glu Asp Pro Phe Tyr Trp Ile Asn Pro Gly
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<212> PRT
<213> Homo sapiens

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Arg Val Ile Gly Pro Arg His Pro Ile Arg Ala Leu Val Gly Asp Glu
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Val Glu Leu Pro Cys Arg Ile Ser
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<211> 24
<212> PRT
<213> Bos taurus

<400> 13

Arg Val Ile Gly Pro Gly His Pro Ile Arg Ala Leu Val Gly Asp Glu
1 5 10 15

Val Glu Leu Pro Cys Arg Ile Ser
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<210> 14
<211> 21
<212> PRT
<213> Homo sapiens

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Met Glu Val Gly Trp Tyr Arg Pro Pro Phe Ser Arg Val Val His Leu
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Tyr Arg Asn Gly Lys
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<213> Homo sapiens

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Trp Tyr Arg Pro Pro Phe Ser Arg Val Val His Leu Tyr
1 5 10

<210> 16
<211> 6
<212> PRT
<213> Bos taurus

<400> 16

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Thr Gln Leu Leu Lys Glu
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Thr Glu Leu Leu Lys Asp
1 5

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<213> Homo sapiens

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Lys Val Thr Leu Arg Ile Arg Asn Val
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<213> Homo sapiens

<400> 19

Phe Thr Cys Phe Phe Arg Asp His
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<213> Homo sapiens

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Val Glu Asp Pro Phe Tyr Trp Val Ser Pro Gly Val Leu Val Leu Leu
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Ala Val Leu Pro Val Leu Leu Leu Gln Ile Thr Val Gly Leu Val Phe
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Leu Cys Leu Gln Tyr Arg
35

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<213> Bos sp.

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Val Glu Asp Pro Phe Tyr Trp Ile Asn Pro Gly Val Leu Val Leu Ile
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Ala Val Leu Pro Val Leu Leu Leu Gln Ile Thr Val Gly Leu Val Phe
20 25 30

Leu Cys Leu Gln Arg Arg
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Pro His Phe Leu Arg Val Pro Cys Trp Lys Ile Thr Leu Phe Val Ile
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Val Pro Val Leu Gly Pro Leu Val Ala Leu Ile Ile Cys Tyr Asn Trp
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<213> Bos taurus

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Pro His Phe Leu Met Val Pro Cys Trp Lys Ile Thr Leu Phe Val Ile
1 5 10 15

Val Pro Val Leu Gly Pro Leu Val Ala Leu Ile Ile Cys Tyr Asn Trp
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His Arg Arg Leu Ala Gly Gln
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<213> Bos taurus

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Ile Gly Pro Gly His Pro
1 5

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Arg Ile Ser Pro Gly Lys Asn Ala Thr Gly Met
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Val Gly Trp Tyr Arg Pro
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Asn Gly Lys Asp Gln Asp Gly Asp Gln Ala Pro Glu Tyr Arg Gly Arg
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Asn Gly Lys Asp Gln Asp Glu Glu Gln Ala Pro Glu Tyr Arg Gly Arg
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Ser Asp Glu Gly Gly
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Tyr Gln Glu Glu Ala
1 5

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Pro Gly His Pro Ile Arg Ala Leu Val Gly Asp Glu Val Glu Leu Pro
1 5 10 15

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Gly Asp Glu Val Glu Leu Pro Cys Arg Ile Ser Pro Gly Lys Asn Ala
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Val His Leu Tyr Arg Asn Gly Lys Asp Gln Asp Glu Glu Gln Ala Pro
1 5 10 15

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Pro Gly Lys Asn Ala Thr Gly Met Glu Val Gly Trp Tyr Arg Pro Pro
1 5 10 15

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Gly Met Glu Val Gly Trp Tyr Arg Pro Pro Phe Ser Arg Val Val His
1 5 10 15

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Lys Glu Thr Ile Gly Glu Gly Lys Val Thr Leu Arg Ile Arg Asn Val
1 5 10 15

<210> 38
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Ala Glu Ile Glu Asn Leu His Arg Thr Phe Asp Pro His Phe Leu Met
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Asp Gln Asp Glu Glu Gln Ala Pro Glu Tyr Arg Gly Arg Thr Gln Leu
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Thr Leu Arg Ile Arg Asn Val Arg Phe Ser Asp Glu Gly Gly Phe Thr
1 5 10 15

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<213> Bos taurus

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Leu Lys Val Glu Asp Pro Phe Tyr Trp Ile Asn Pro Gly Val Leu Val
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Met Gly Asn His Ala Gly Lys Arg Glu Leu Asn Ala Glu Lys Ala Ser
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Thr Asn Ser Glu Thr Asn Arg Gly Glu Ser Glu Lys Lys Arg Asn Leu
20 25 30

Gly Glu Leu Ser Arg Thr Thr Ser Glu Asp Asn Glu Val Phe Gly Glu
35 40 45

Ala Asp Ala Asn Gln Asn Asn Gly Thr Ser Ser Gln Asp Thr Ala Val
50 55 60

Thr Asp Ser Lys Arg Thr Ala Asp Pro Lys Asn Ala Trp Gln Asp Ala
65 70 75 80

His Pro Ala Asp Pro Gly Ser Arg Pro His Leu Ile Arg Leu Phe Ser
85 90 95

Arg Asp Ala Pro Gly Arg Glu Asp Asn Thr Phe Lys Asp Arg Pro Ser
100 105 110

Glu Ser Asp Glu Leu Gln Thr Ile Gln Glu Asp Ser Ala Ala Thr Ser
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115 120 12896145 125
 Glu Ser Leu Asp Val Met Ala Ser Gln Lys Arg Pro Ser Gln Arg His
 130 135 140
 Gly Ser Lys Tyr Leu Ala Thr Ala Ser Thr Met Asp His Ala Arg His
 145 150 155 160
 Gly Phe Leu Pro Arg His Arg Asp Thr Gly Ile Leu Asp Ser Ile Gly
 165 170 175
 Arg Phe Phe Gly Gly Asp Arg Gly Ala Pro Lys Arg Gly Ser Gly Lys
 180 185 190
 Asp Ser His His Pro Ala Arg Thr Ala His Tyr Gly Ser Leu Pro Gln
 195 200 205
 Lys Ser His Gly Arg Thr Gln Asp Glu Asn Pro Val Val His Phe Phe
 210 215 220
 Lys Asn Ile Val Thr Pro Arg Thr Pro Pro Pro Ser Gln Gly Lys Gly
 225 230 235 240
 Arg Gly Leu Ser Leu Ser Arg Phe Ser Trp Gly Ala Glu Gly Gln Arg
 245 250 255
 Pro Gly Phe Gly Tyr Gly Gly Arg Ala Ser Asp Tyr Lys Ser Ala His
 260 265 270
 Lys Gly Phe Lys Gly Val Asp Ala Gln Gly Thr Leu Ser Lys Ile Phe
 275 280 285
 Lys Leu Gly Gly Arg Asp Ser Arg Ser Gly Ser Pro Met Ala Arg Arg
 290 295 300

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Ala Ala Gln Lys Arg Pro Ser Gln Arg Ser Lys Tyr Leu Ala Ser Ala
 1 5 10 15
 Ser Thr Met Asp His Ala Arg His Gly Phe Leu Pro Arg His Arg Asp
 20 25 30
 Thr Gly Ile Leu Asp Ser Leu Gly Arg Phe Phe Gly Ser Asp Arg Gly
 35 40 45
 Ala Pro Lys Arg Gly Ser Gly Lys Asp Gly His His Ala Ala Arg Thr
 50 55 60

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Thr His Tyr Gly Ser Leu Pro Gln Lys Ala Gln Gly His Arg Pro Gln
65 70 75 80

Asp Glu Asn Pro Val Val His Phe Phe Lys Asn Ile Val Thr Pro Arg
85 90 95

Thr Pro Pro Pro Ser Gln Gly Lys Gly Arg Gly Leu Ser Leu Ser Arg
100 105 110

Phe Ser Trp Gly Ala Glu Gly Gln Lys Pro Gly Phe Gly Tyr Gly Gly
115 120 125

Arg Ala Ser Asp Tyr Lys Ser Ala His Lys Gly Leu Lys Gly His Asp
130 135 140

Ala Gln Gly Thr Leu Ser Lys Ile Phe Lys Leu Gly Gly Arg Asp Ser
145 150 155 160

Arg Ser Gly Ser Pro Met Ala Arg Arg
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<213> Homo sapiens

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Phe Gly Gly Asp Arg Gly Ala Pro Lys Arg Gly Ser Gly Lys Asp Ser
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His His Pro Ala Arg Thr Ala His Tyr Gly Ser Leu Pro Gln Lys Ser
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His Gly Arg Thr Gln Asp Glu Asn Pro Val Val His
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<213> Bos taurus

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Phe Gly Ser Asp Arg Gly Ala Pro Lys Arg Gly Ser Gly Lys Asp Gly
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His His Ala Ala Arg Thr Thr His Tyr Gly Ser Leu Pro Gln Lys Ala
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Gln Gly His Arg Pro Gln Asp Glu Asn Pro Val Val His
35 40 45

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Ser Arg Phe Ser Trp Gly Ala Glu Gly Gln Arg
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Ser Trp Gly Ala Glu Gly Gln Lys Pro
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Arg Ser Lys Tyr Leu Ala Ser Ala
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Arg His Gly Phe Leu Pro Arg
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Leu Asp Ser Leu Gly Arg Phe
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Tyr Gly Ser Leu Pro Gln Lys Ala
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Glu Asn Pro Val Val His Phe Phe Lys Asn Ile Val Thr Pro Arg
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Gly Leu Ser Leu Ser Arg Phe
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Tyr Lys Ser Ala His Lys Gly Leu
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<400> 55

Gln Gly Thr Leu Ser Lys Ile Phe Lys Leu
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