

674-60_ST25.txt
SEQUENCE LISTING

<110> BioNTech AG

<120> METHOD FOR CELLULAR RNA EXPRESSION

<130> 674-60

<160> 32

<170> PatentIn version 3.5

<210> 1

<211> 1411

<212> DNA

<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 2

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 20 25 30

Arg Thr Trp Leu Ser Phe Gln Gly Pro Pro Gly Gly Pro Gly Ile Gly
 35 40 45

Pro Gly Val Gly Pro Gly Ser Glu Val Trp Gly Ile Pro Pro Cys Pro
 50 55 60

Pro Pro Tyr Glu Phe Cys Gly Gly Met Ala Tyr Cys Gly Pro Gln Val
 65 70 75 80

Gly Val Gly Leu Val Pro Gln Gly Gly Leu Glu Thr Ser Gln Pro Glu
 85 90 95

Gly Glu Ala Gly Val Gly Val Glu Ser Asn Ser Asp Gly Ala Ser Pro
 100 105 110

Glu Pro Cys Thr Val Thr Pro Gly Ala Val Lys Leu Glu Lys Glu Lys
 115 120 125

Leu Glu Gln Asn Pro Glu Glu Ser Gln Asp Ile Lys Ala Leu Gln Lys
 130 135 140

Glu Leu Glu Gln Phe Ala Lys Leu Leu Lys Gln Lys Arg Ile Thr Leu
 145 150 155 160

Gly Tyr Thr Gln Ala Asp Val Gly Leu Thr Leu Gly Val Leu Phe Gly
 165 170 175

Lys Val Phe Ser Gln Thr Thr Ile Cys Arg Phe Glu Ala Leu Gln Leu
 180 185 190

Ser Phe Lys Asn Met Cys Lys Leu Arg Pro Leu Leu Gln Lys Trp Val
 195 200 205

Glu Glu Ala Asp Asn Asn Glu Asn Leu Gln Glu Ile Cys Lys Ala Glu
 210 215 220

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Thr Leu Val Gln Ala Arg Lys Arg Lys Arg Thr Ser Ile Glu Asn Arg
225 230 235 240

Val Arg Gly Asn Leu Glu Asn Leu Phe Leu Gln Cys Pro Lys Pro Thr
245 250 255

Leu Gln Gln Ile Ser His Ile Ala Gln Gln Leu Gly Leu Glu Lys Asp
260 265 270

Val Val Arg Val Trp Phe Cys Asn Arg Arg Gln Lys Gly Lys Arg Ser
275 280 285

Ser Ser Asp Tyr Ala Gln Arg Glu Asp Phe Glu Ala Ala Gly Ser Pro
290 295 300

Phe Ser Gly Gly Pro Val Ser Phe Pro Leu Ala Pro Gly Pro His Phe
305 310 315 320

Gly Thr Pro Gly Tyr Gly Ser Pro His Phe Thr Ala Leu Tyr Ser Ser
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<212> DNA
<213> Homo sapiens

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<210> 4
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<212> PRT
<213> Homo sapiens

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<400> 4
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Thr Ser Gly Gly Gly Gly Gly Asn Ser Thr Ala Ala Ala Ala Gly Gly
      20              25              30

```

```

Asn Gln Lys Asn Ser Pro Asp Arg Val Lys Arg Pro Met Asn Ala Phe
      35              40              45

```

```

Met Val Trp Ser Arg Gly Gln Arg Arg Lys Met Ala Gln Glu Asn Pro
      50              55              60

```

```

Lys Met His Asn Ser Glu Ile Ser Lys Arg Leu Gly Ala Glu Trp Lys
      65              70              75              80

```

```

Leu Leu Ser Glu Thr Glu Lys Arg Pro Phe Ile Asp Glu Ala Lys Arg
      85              90              95

```

```

Leu Arg Ala Leu His Met Lys Glu His Pro Asp Tyr Lys Tyr Arg Pro
      100             105             110

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Arg Arg Lys Thr Lys Thr Leu Met Lys Lys Asp Lys Tyr Thr Leu Pro
      115             120             125

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Gly Gly Leu Leu Ala Pro Gly Gly Asn Ser Met Ala Ser Gly Val Gly
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Val Gly Ala Gly Leu Gly Ala Gly Val Asn Gln Arg Met Asp Ser Tyr
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Ala His Met Asn Gly Trp Ser Asn Gly Ser Tyr Ser Met Met Gln Asp
165 170 175

Gln Leu Gly Tyr Pro Gln His Pro Gly Leu Asn Ala His Gly Ala Ala
180 185 190

Gln Met Gln Pro Met His Arg Tyr Asp Val Ser Ala Leu Gln Tyr Asn
195 200 205

Ser Met Thr Ser Ser Gln Thr Tyr Met Asn Gly Ser Pro Thr Tyr Ser
210 215 220

Met Ser Tyr Ser Gln Gln Gly Thr Pro Gly Met Ala Leu Gly Ser Met
225 230 235 240

Gly Ser Val Val Lys Ser Glu Ala Ser Ser Ser Pro Pro Val Val Thr
245 250 255

Ser Ser Ser His Ser Arg Ala Pro Cys Gln Ala Gly Asp Leu Arg Asp
260 265 270

Met Ile Ser Met Tyr Leu Pro Gly Ala Glu Val Pro Glu Pro Ala Ala
275 280 285

Pro Ser Arg Leu His Met Ser Gln His Tyr Gln Ser Gly Pro Val Pro
290 295 300

Gly Thr Ala Ile Asn Gly Thr Leu Pro Leu Ser His Met
305 310 315

<210> 5
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<212> DNA
<213> Homo sapiens

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<210> 6
<211> 305
<212> PRT
<213> Homo sapiens

<400> 6

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

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Gly Leu Asn Val Ile Gln Gln Thr Thr Arg Tyr Phe Ser Thr Pro Gln
275 280 285

Thr Met Asp Leu Phe Leu Asn Tyr Ser Met Asn Met Gln Pro Glu Asp
290 295 300

Val
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<210> 7
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<212> DNA
<213> Homo sapiens

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<212> PRT
<213> Homo sapiens

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Asp Glu Pro Gln Leu Leu His Gly Ala Gly Ile Cys Lys Trp Phe Asn
35 40 45

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Val Arg Met Gly Phe Gly Phe Leu Ser Met Thr Ala Arg Ala Gly Val
50 55 60

Ala Leu Asp Pro Pro Val Asp Val Phe Val His Gln Ser Lys Leu His
65 70 75 80

Met Glu Gly Phe Arg Ser Leu Lys Glu Gly Glu Ala Val Glu Phe Thr
85 90 95

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

Gly Gly Val Phe Cys Ile Gly Ser Glu Arg Arg Pro Lys Gly Lys Ser
115 120 125

Met Gln Lys Arg Arg Ser Lys Gly Asp Arg Cys Tyr Asn Cys Gly Gly
130 135 140

Leu Asp His His Ala Lys Glu Cys Lys Leu Pro Pro Gln Pro Lys Lys
145 150 155 160

Cys His Phe Cys Gln Ser Ile Ser His Met Val Ala Ser Cys Pro Leu
165 170 175

Lys Ala Gln Gln Gly Pro Ser Ala Gln Gly Lys Pro Thr Tyr Phe Arg
180 185 190

Glu Glu Glu Glu Glu Ile His Ser Pro Thr Leu Leu Pro Glu Ala Gln
195 200 205

Asn

<210> 9
<211> 2639
<212> DNA
<213> Homo sapiens

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<210> 10
<211> 470
<212> PRT
<213> Homo sapiens

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<400> 10

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

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Asn Arg Trp Arg Glu Glu Leu Ser His Met Lys Arg Leu Pro Pro Val
          35          40          45

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```

Leu Pro Gly Arg Pro Tyr Asp Leu Ala Ala Ala Thr Val Ala Thr Asp
          50          55          60

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```

Leu Glu Ser Gly Gly Ala Gly Ala Ala Cys Gly Gly Ser Asn Leu Ala
65          70          75          80

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Pro Leu Pro Arg Arg Glu Thr Glu Glu Phe Asn Asp Leu Leu Asp Leu
          85          90          95

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Asp Phe Ile Leu Ser Asn Ser Leu Thr His Pro Pro Glu Ser Val Ala
          100          105          110

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```

Ala Thr Val Ser Ser Ser Ala Ser Ala Ser Ser Ser Ser Ser Pro Ser
          115          120          125

```

```

Ser Ser Gly Pro Ala Ser Ala Pro Ser Thr Cys Ser Phe Thr Tyr Pro
          130          135          140

```

```

Ile Arg Ala Gly Asn Asp Pro Gly Val Ala Pro Gly Gly Thr Gly Gly
145          150          155          160

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```

Gly Leu Leu Tyr Gly Arg Glu Ser Ala Pro Pro Pro Thr Ala Pro Phe
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Asn Leu Ala Asp Ile Asn Asp Val Ser Pro Ser Gly Gly Phe Val Ala
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Glu Leu Leu Arg Pro Glu Leu Asp Pro Val Tyr Ile Pro Pro Gln Gln
 195 200 205

Pro Gln Pro Pro Gly Gly Gly Leu Met Gly Lys Phe Val Leu Lys Ala
 210 215 220

Ser Leu Ser Ala Pro Gly Ser Glu Tyr Gly Ser Pro Ser Val Ile Ser
 225 230 235 240

Val Ser Lys Gly Ser Pro Asp Gly Ser His Pro Val Val Val Ala Pro
 245 250 255

Tyr Asn Gly Gly Pro Pro Arg Thr Cys Pro Lys Ile Lys Gln Glu Ala
 260 265 270

Val Ser Ser Cys Thr His Leu Gly Ala Gly Pro Pro Leu Ser Asn Gly
 275 280 285

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