

456-5 PCT Sequ. Listing_ST25.txt
SEQUENCE LISTING

<110> Life & Brain GmbH

<120> Fusion Protein And Use Thereof

<130> 456-5 PCT

<140>

<141> 2009-06-15

<150> EP 08010805.3

<151> 2008-06-13

<160> 22

<170> PatentIn version 3.5

<210> 1

<211> 395

<212> PRT

<213> Artificial

<220>

<223> Fusion protein Oct4NTH

<400> 1

Met Asn Ser Pro Arg Ala Gly His Leu Ala Ser Asp Phe Ala Phe Ser
1 5 10 15

Pro Pro Pro Gly Gly Gly Asp Gly Ser Ala Gly Leu Glu Pro Gly Trp
20 25 30

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

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

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

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

Gln Ala Gly Ala Arg Val Glu Ser Asn Ser Glu Gly Thr Ser Ser Glu
100 105 110

Pro Cys Ala Asp Arg Pro Asn Ala Val Lys Leu Glu Lys Val Glu Pro
115 120 125

Thr Pro Glu Glu Ser Gln Asp Met Lys Ala Leu Gln Lys Glu Leu Glu
130 135 140

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

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

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

Asn Met Cys Lys Leu Arg Pro Leu Leu Glu Lys Trp Val Glu Glu Ala
195 200 205

Asp Asn Asn Glu Asn Leu Gln Glu Ile Cys Lys Ser Glu Thr Leu Val
210 215 220

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

Ser Leu Glu Thr Met Phe Leu Lys Cys Pro Lys Pro Ser Leu Gln Gln
245 250 255

Ile Thr His Ile Ala Asn Gln Leu Gly Leu Glu Lys Asp Val Val Arg
260 265 270

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

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

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

Tyr Gly Ser Pro His Phe Thr Thr Leu Tyr Ser Val Pro Phe Pro Glu
325 330 335

Gly Glu Ala Phe Pro Ser Val Pro Val Thr Ala Leu Gly Ser Pro Met
340 345 350

His Ser Asn Ala Ser Thr Ser Lys Lys Lys Arg Lys Val Thr Ser Ala
355 360 365

Ala Ala Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Ala Ala
370 375 380

Ala Leu Glu His His His His His His His His
385 390 395

<210> 2
<211> 387
<212> PRT
<213> Artificial

<220>
<223> Fusion protein Oct4TH

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<400> 2

Met Asn Ser Pro Arg Ala Gly His Leu Ala Ser Asp Phe Ala Phe Ser
1 5 10 15

Pro Pro Pro Gly Gly Gly Asp Gly Ser Ala Gly Leu Glu Pro Gly Trp
20 25 30

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

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

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

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

Gln Ala Gly Ala Arg Val Glu Ser Asn Ser Glu Gly Thr Ser Ser Glu
100 105 110

Pro Cys Ala Asp Arg Pro Asn Ala Val Lys Leu Glu Lys Val Glu Pro
115 120 125

Thr Pro Glu Glu Ser Gln Asp Met Lys Ala Leu Gln Lys Glu Leu Glu
130 135 140

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

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

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

Asn Met Cys Lys Leu Arg Pro Leu Leu Glu Lys Trp Val Glu Glu Ala
195 200 205

Asp Asn Asn Glu Asn Leu Gln Glu Ile Cys Lys Ser Glu Thr Leu Val
210 215 220

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

Ser Leu Glu Thr Met Phe Leu Lys Cys Pro Lys Pro Ser Leu Gln Gln
245 250 255

Ile Thr His Ile Ala Asn Gln Leu Gly Leu Glu Lys Asp Val Val Arg
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260

265

270

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

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

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

Tyr Gly Ser Pro His Phe Thr Thr Leu Tyr Ser Val Pro Phe Pro Glu
 325 330 335

Gly Glu Ala Phe Pro Ser Val Pro Val Thr Ala Leu Gly Ser Pro Met
 340 345 350

His Ser Asn Ala Ser Thr Ser Ala Ala Ala Gly Arg Lys Lys Arg Arg
 355 360 365

Gln Arg Arg Arg Pro Pro Ala Ala Ala Leu Glu His His His His His
 370 375 380

His His His
 385

<210> 3
 <211> 395
 <212> PRT
 <213> Artificial

<220>
 <223> Fusion protein HTNOct4

<400> 3

Met Gly His His His His His His Gly Met Gly Ala Ala Gly Arg Lys
 1 5 10 15

Lys Arg Arg Gln Arg Arg Arg Pro Pro Ala Gly Thr Ser Gly Asn Ser
 20 25 30

Lys Lys Lys Arg Lys Val Gly Asn Ser Pro Arg Ala Gly His Leu Ala
 35 40 45

Ser Asp Phe Ala Phe Ser Pro Pro Pro Gly Gly Gly Asp Gly Ser Ala
 50 55 60

Gly Leu Glu Pro Gly Trp Val Asp Pro Arg Thr Trp Leu Ser Phe Gln
 65 70 75 80

Gly Pro Pro Gly Gly Pro Gly Ile Gly Pro Gly Ser Glu Val Leu Gly
 85 90 95

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Ile Ser Pro Cys Pro Pro Ala Tyr Glu Phe Cys Gly Gly Met Ala Tyr
      100      105      110

Cys Gly Pro Gln Val Gly Leu Gly Leu Val Pro Gln Val Gly Val Glu
      115      120      125

Thr Leu Gln Pro Glu Gly Gln Ala Gly Ala Arg Val Glu Ser Asn Ser
      130      135      140

Glu Gly Thr Ser Ser Glu Pro Cys Ala Asp Arg Pro Asn Ala Val Lys
      145      150      155      160

Leu Glu Lys Val Glu Pro Thr Pro Glu Glu Ser Gln Asp Met Lys Ala
      165      170      175

Leu Gln Lys Glu Leu Glu Gln Phe Ala Lys Leu Leu Lys Gln Lys Arg
      180      185      190

Ile Thr Leu Gly Tyr Thr Gln Ala Asp Val Gly Leu Thr Leu Gly Val
      195      200      205

Leu Phe Gly Lys Val Phe Ser Gln Thr Thr Ile Cys Arg Phe Glu Ala
      210      215      220

Leu Gln Leu Ser Leu Lys Asn Met Cys Lys Leu Arg Pro Leu Leu Glu
      225      230      235      240

Lys Trp Val Glu Glu Ala Asp Asn Asn Glu Asn Leu Gln Glu Ile Cys
      245      250      255

Lys Ser Glu Thr Leu Val Gln Ala Arg Lys Arg Lys Arg Thr Ser Ile
      260      265      270

Glu Asn Arg Val Arg Trp Ser Leu Glu Thr Met Phe Leu Lys Cys Pro
      275      280      285

Lys Pro Ser Leu Gln Gln Ile Thr His Ile Ala Asn Gln Leu Gly Leu
      290      295      300

Glu Lys Asp Val Val Arg Val Trp Phe Cys Asn Arg Arg Gln Lys Gly
      305      310      315      320

Lys Arg Ser Ser Ile Glu Tyr Ser Gln Arg Glu Glu Tyr Glu Ala Thr
      325      330      335

Gly Thr Pro Phe Pro Gly Gly Val Ser Phe Pro Leu Pro Pro Gly Pro
      340      345      350

His Phe Gly Thr Pro Gly Tyr Gly Ser Pro His Phe Thr Thr Leu Tyr
      355      360      365

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Ser Val Pro Phe Pro Glu Gly Glu Ala Phe Pro Ser Val Pro Val Thr
370 375 380

Ala Leu Gly Ser Pro Met His Ser Asn Ala Ser
385 390 395

<210> 4
<211> 386
<212> PRT
<213> Artificial

<220>
<223> Fusion protein HTOct4

<400> 4

Met Gly His His His His His His Gly Met Gly Ala Ala Gly Arg Lys
1 5 10 15

Lys Arg Arg Gln Arg Arg Arg Pro Pro Ala Gly Thr Ser Gly Asn Ser
20 25 30

Pro Arg Ala Gly His Leu Ala Ser Asp Phe Ala Phe Ser Pro Pro Pro
35 40 45

Gly Gly Gly Asp Gly Ser Ala Gly Leu Glu Pro Gly Trp Val Asp Pro
50 55 60

Arg Thr Trp Leu Ser Phe Gln Gly Pro Pro Gly Gly Pro Gly Ile Gly
65 70 75 80

Pro Gly Ser Glu Val Leu Gly Ile Ser Pro Cys Pro Pro Ala Tyr Glu
85 90 95

Phe Cys Gly Gly Met Ala Tyr Cys Gly Pro Gln Val Gly Leu Gly Leu
100 105 110

Val Pro Gln Val Gly Val Glu Thr Leu Gln Pro Glu Gly Gln Ala Gly
115 120 125

Ala Arg Val Glu Ser Asn Ser Glu Gly Thr Ser Ser Glu Pro Cys Ala
130 135 140

Asp Arg Pro Asn Ala Val Lys Leu Glu Lys Val Glu Pro Thr Pro Glu
145 150 155 160

Glu Ser Gln Asp Met Lys Ala Leu Gln Lys Glu Leu Glu Gln Phe Ala
165 170 175

Lys Leu Leu Lys Gln Lys Arg Ile Thr Leu Gly Tyr Thr Gln Ala Asp
180 185 190

Val Gly Leu Thr Leu Gly Val Leu Phe Gly Lys Val Phe Ser Gln Thr
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195

200

205

Thr Ile Cys Arg Phe Glu Ala Leu Gln Leu Ser Leu Lys Asn Met Cys
 210 215 220

Lys Leu Arg Pro Leu Leu Glu Lys Trp Val Glu Glu Ala Asp Asn Asn
 225 230 235 240

Glu Asn Leu Gln Glu Ile Cys Lys Ser Glu Thr Leu Val Gln Ala Arg
 245 250 255

Lys Arg Lys Arg Thr Ser Ile Glu Asn Arg Val Arg Trp Ser Leu Glu
 260 265 270

Thr Met Phe Leu Lys Cys Pro Lys Pro Ser Leu Gln Gln Ile Thr His
 275 280 285

Ile Ala Asn Gln Leu Gly Leu Glu Lys Asp Val Val Arg Val Trp Phe
 290 295 300

Cys Asn Arg Arg Gln Lys Gly Lys Arg Ser Ser Ile Glu Tyr Ser Gln
 305 310 315 320

Arg Glu Glu Tyr Glu Ala Thr Gly Thr Pro Phe Pro Gly Gly Val Ser
 325 330 335

Phe Pro Leu Pro Pro Gly Pro His Phe Gly Thr Pro Gly Tyr Gly Ser
 340 345 350

Pro His Phe Thr Thr Leu Tyr Ser Val Pro Phe Pro Glu Gly Glu Ala
 355 360 365

Phe Pro Ser Val Pro Val Thr Ala Leu Gly Ser Pro Met His Ser Asn
 370 375 380

Ala Ser
 385

<210> 5
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 <212> PRT
 <213> Artificial

<220>
 <223> Fusion protein Sox2NTH

<400> 5

Met Asn Ser Pro Arg Met Tyr Asn Met Met Glu Thr Glu Leu Lys Pro
 1 5 10 15

Pro Gly Pro Gln Gln Ala Ser Gly Gly Gly Gly Gly Gly Gly Asn Ala
 20 25 30

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Thr Ala Ala Ala Thr Gly Gly Asn Gln Lys Asn Ser Pro Asp Arg Val
35 40 45

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

Lys Met Ala Gln Glu Asn Pro Lys Met His Asn Ser Glu Ile Ser Lys
65 70 75 80

Arg Leu Gly Ala Glu Trp Lys Leu Leu Ser Glu Thr Glu Lys Arg Pro
85 90 95

Phe Ile Asp Glu Ala Lys Arg Leu Arg Ala Leu His Met Lys Glu His
100 105 110

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

Lys Asp Lys Tyr Thr Leu Pro Gly Gly Leu Leu Ala Pro Gly Gly Asn
130 135 140

Ser Met Ala Ser Gly Val Gly Val Gly Ala Gly Leu Gly Ala Gly Val
145 150 155 160

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

Ser Tyr Ser Met Met Gln Glu Gln Leu Gly Tyr Pro Gln His Pro Gly
180 185 190

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

Val Ser Ala Leu Gln Tyr Asn Ser Met Thr Ser Ser Gln Thr Tyr Met
210 215 220

Asn Gly Ser Pro Thr Tyr Ser Met Ser Tyr Ser Gln Gln Gly Thr Pro
225 230 235 240

Gly Met Ala Leu Gly Ser Met Gly Ser Val Val Lys Ser Glu Ala Ser
245 250 255

Ser Ser Pro Pro Val Val Thr Ser Ser Ser His Ser Arg Ala Pro Cys
260 265 270

Gln Ala Gly Asp Leu Arg Asp Met Ile Ser Met Tyr Leu Pro Gly Ala
275 280 285

Glu Val Pro Glu Pro Ala Ala Pro Ser Arg Leu His Met Ala Gln His
290 295 300

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Tyr Gln Ser Gly Pro Val Pro Gly Thr Ala Ile Asn Gly Thr Leu Pro
305 310 315 320

Leu Ser His Met Ala Ser Thr Ser Lys Lys Lys Arg Lys Val Thr Ser
325 330 335

Ala Ala Ala Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Ala
340 345 350

Ala Ala Leu Glu His His His His His His His His
355 360

<210> 6
<211> 356
<212> PRT
<213> Artificial

<220>
<223> Fusion protein Sox2TH

<400> 6

Met Asn Ser Pro Arg Met Tyr Asn Met Met Glu Thr Glu Leu Lys Pro
1 5 10 15

Pro Gly Pro Gln Gln Ala Ser Gly Gly Gly Gly Gly Gly Gly Asn Ala
20 25 30

Thr Ala Ala Ala Thr Gly Gly Asn Gln Lys Asn Ser Pro Asp Arg Val
35 40 45

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

Lys Met Ala Gln Glu Asn Pro Lys Met His Asn Ser Glu Ile Ser Lys
65 70 75 80

Arg Leu Gly Ala Glu Trp Lys Leu Leu Ser Glu Thr Glu Lys Arg Pro
85 90 95

Phe Ile Asp Glu Ala Lys Arg Leu Arg Ala Leu His Met Lys Glu His
100 105 110

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

Lys Asp Lys Tyr Thr Leu Pro Gly Gly Leu Leu Ala Pro Gly Gly Asn
130 135 140

Ser Met Ala Ser Gly Val Gly Val Gly Ala Gly Leu Gly Ala Gly Val
145 150 155 160

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

Ser Tyr Ser Met Met Gln Glu Gln Leu Gly Tyr Pro Gln His Pro Gly
180 185 190

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

Val Ser Ala Leu Gln Tyr Asn Ser Met Thr Ser Ser Gln Thr Tyr Met
210 215 220

Asn Gly Ser Pro Thr Tyr Ser Met Ser Tyr Ser Gln Gln Gly Thr Pro
225 230 235 240

Gly Met Ala Leu Gly Ser Met Gly Ser Val Val Lys Ser Glu Ala Ser
245 250 255

Ser Ser Pro Pro Val Val Thr Ser Ser Ser His Ser Arg Ala Pro Cys
260 265 270

Gln Ala Gly Asp Leu Arg Asp Met Ile Ser Met Tyr Leu Pro Gly Ala
275 280 285

Glu Val Pro Glu Pro Ala Ala Pro Ser Arg Leu His Met Ala Gln His
290 295 300

Tyr Gln Ser Gly Pro Val Pro Gly Thr Ala Ile Asn Gly Thr Leu Pro
305 310 315 320

Leu Ser His Met Ala Ser Thr Ser Ala Ala Ala Gly Arg Lys Lys Arg
325 330 335

Arg Gln Arg Arg Arg Pro Pro Ala Ala Ala Leu Glu His His His His
340 345 350

His His His His
355

<210> 7
<211> 364
<212> PRT
<213> Artificial

<220>
<223> Fusion protein HTNSox2

<400> 7

Met Gly His His His His His His Gly Met Gly Ala Ala Gly Arg Lys
1 5 10 15

Lys Arg Arg Gln Arg Arg Arg Pro Pro Ala Gly Thr Ser Gly Asn Ser
20 25 30

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

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His Ser Arg Ala Pro Cys Gln Ala Gly Asp Leu Arg Asp Met Ile Ser
305 310 315 320

Met Tyr Leu Pro Gly Ala Glu Val Pro Glu Pro Ala Ala Pro Ser Arg
325 330 335

Leu His Met Ala Gln His Tyr Gln Ser Gly Pro Val Pro Gly Thr Ala
340 345 350

Ile Asn Gly Thr Leu Pro Leu Ser His Met Ala Ser
355 360

<210> 8
<211> 355
<212> PRT
<213> Artificial

<220>
<223> Fusion protein HTSox2

<400> 8

Met Gly His His His His His His Gly Met Gly Ala Ala Gly Arg Lys
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Lys Arg Arg Gln Arg Arg Arg Pro Pro Ala Gly Thr Ser Gly Asn Ser
20 25 30

Pro Arg Met Tyr Asn Met Met Glu Thr Glu Leu Lys Pro Pro Gly Pro
35 40 45

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

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

Met Asn Ala Phe Met Val Trp Ser Arg Gly Gln Arg Arg Lys Met Ala
85 90 95

Gln Glu Asn Pro Lys Met His Asn Ser Glu Ile Ser Lys Arg Leu Gly
100 105 110

Ala Glu Trp Lys Leu Leu Ser Glu Thr Glu Lys Arg Pro Phe Ile Asp
115 120 125

Glu Ala Lys Arg Leu Arg Ala Leu His Met Lys Glu His Pro Asp Tyr
130 135 140

Lys Tyr Arg Pro Arg Arg Lys Thr Lys Thr Leu Met Lys Lys Asp Lys
145 150 155 160

Tyr Thr Leu Pro Gly Gly Leu Leu Ala Pro Gly Gly Asn Ser Met Ala
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165

170

175

Ser Gly Val Gly Val Gly Ala Gly Leu Gly Ala Gly Val Asn Gln Arg
180 185 190

Met Asp Ser Tyr Ala His Met Asn Gly Trp Ser Asn Gly Ser Tyr Ser
195 200 205

Met Met Gln Glu Gln Leu Gly Tyr Pro Gln His Pro Gly Leu Asn Ala
210 215 220

His Gly Ala Ala Gln Met Gln Pro Met His Arg Tyr Asp Val Ser Ala
225 230 235 240

Leu Gln Tyr Asn Ser Met Thr Ser Ser Gln Thr Tyr Met Asn Gly Ser
245 250 255

Pro Thr Tyr Ser Met Ser Tyr Ser Gln Gln Gly Thr Pro Gly Met Ala
260 265 270

Leu Gly Ser Met Gly Ser Val Val Lys Ser Glu Ala Ser Ser Ser Pro
275 280 285

Pro Val Val Thr Ser Ser Ser His Ser Arg Ala Pro Cys Gln Ala Gly
290 295 300

Asp Leu Arg Asp Met Ile Ser Met Tyr Leu Pro Gly Ala Glu Val Pro
305 310 315 320

Glu Pro Ala Ala Pro Ser Arg Leu His Met Ala Gln His Tyr Gln Ser
325 330 335

Gly Pro Val Pro Gly Thr Ala Ile Asn Gly Thr Leu Pro Leu Ser His
340 345 350

Met Ala Ser
355

<210> 9
<211> 20
<212> DNA
<213> Artificial

<220>
<223> PCR primer b-Actin_forw

<400> 9
ctggctccta gcaccatgaa

20

<210> 10
<211> 20
<212> DNA
<213> Artificial

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<220>
<223> PCR primer b-Actin_rev

<400> 10
gccggactca tcgtactcct
20

<210> 11
<211> 21
<212> DNA
<213> Artificial

<220>
<223> PCR primer Pou5f1_for

<400> 11
ccctgcagaa ggagctagaa c
21

<210> 12
<211> 20
<212> DNA
<213> Artificial

<220>
<223> PCR primer Pou5f1_rev

<400> 12
cttaaggctg agctgcaagg
20

<210> 13
<211> 25
<212> DNA
<213> Artificial

<220>
<223> PCR primer Sox2_forw

<400> 13
ccccttttat tttccgtagt tgtat
25

<210> 14
<211> 25
<212> DNA
<213> Artificial

<220>
<223> PCR primer Sox2_rev

<400> 14
tcaaactgtg cataatggag taaaa
25

<210> 15
<211> 24
<212> DNA
<213> Artificial

<220>
<223> PCR primer Nanog_for

<400> 15
agggtctgct actgagatgc tctg
24

<210> 16

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<211> 24
<212> DNA
<213> Artificial

<220>
<223> PCR primer Nanog_rev

<400> 16
caaccactgg tttttctgcc accg 24

<210> 17
<211> 131
<212> DNA
<213> Artificial

<220>
<223> Excerpt of coding region of vector pSESAME-N

<400> 17
ccatgggcca tcaccatcac catcacggca tgggcgctgc aggtcgcaag aaacgtcgcc 60
aacgtcgccg tccgcctgca ggcactagtg ggaattctaa gaagaagagg aagggtgggga 120
attctcctag g 131

<210> 18
<211> 126
<212> DNA
<213> Artificial

<220>
<223> Excerpt of coding region of vector pSESAME-C

<400> 18
gctagcacta gtaagaagaa gaggaaggtg actagtgcgg ccgcggggtcg caagaaacgt 60
cgccaacgtc gccgtccgcc tgcggccgcg ctcgagcacc accatcacca tcaccatcac 120
taagtg 126

<210> 19
<211> 6
<212> PRT
<213> Artificial

<220>
<223> nuclear localisation signal

<400> 19
Lys Lys Lys Arg Lys Val
1 5

<210> 20
<211> 18
<212> DNA
<213> Artificial

<220>
<223> coding sequence for nuclear localisation signal

<400> 20
aagaagaaga ggaaggtg 18

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<210> 21
 <211> 12
 <212> PRT
 <213> Artificial

<220>
 <223> basic peptide of HIV-1 TAT

<400> 21

Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro
 1 5 10

<210> 22
 <211> 36
 <212> DNA
 <213> Artificial

<220>
 <223> coding sequence for basic TAT peptide

<400> 22
 ggtcgcaaga aacgtcgcca acgtcgccgt ccgcct

36