

1
SEQUENCE LISTING

<110> UNIVERSITE DE LA MEDITERRANEE
INSERM (INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE
MEDICALE)
INNATE PHARMA

<120> COMPOSITIONS AND METHODS FOR TREATING PANCREATIC TUMORS

<130> B723PC00

<150> US 60/942,777

<151> 2007-06-08

<160> 22

<170> PatentIn version 3.3

<210> 1

<211> 411

<212> DNA

<213> Mus musculus

<400> 1

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tgcaaggctt ctggctacac cttcactgac catgctattc actgggtgaa gcagaagcct	180
gaacagggcc tggaatggat tggatatatt tctcccggaa atgatgttat taagttcaat	240
gagaagttca agggcaaggc cacactgact gcagacaaat cctccagcac tgcctacatg	300
cagctcaaca gcctgacatc tgaggattct gcagtgtatt tctgtaagag atcagagggg	360
gggggtttttg actactgggg ccaaggcacc actctcacag tctcctcaga g	411

<210> 2

<211> 399

<212> DNA

<213> Mus musculus

<400> 2

atggaatcac agactcaggt cttcctctcc ctgctgctct gggatatctgg tacctgtggg	60
aacattatga tgacacagtc gccatcatct ctggctgtgt ctgcaggaga aaaggctact	120
atgagctgta agtccagtca aagtgtttta tacagttcaa atcagaagaa cttcttggcc	180
tggtaccagc agaaaccagg acagtctcct aaactgctga tctactgggc atccactagg	240
gaatctggtg tccctgatcg cttcacaggc agtggatctg ggacagattt tactcttacc	300
atcagcagtg tacaagctga agacctggca gtttattact gtcataata cctctcctcg	360
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<210> 3

<211> 474

<212> PRT

<213> artificial sequence

<220>

<223> Chimeric mus musculus/homo sapiens

<400> 3

Met Glu Trp Ser Trp Val Phe Leu Phe² Phe¹⁰ Leu Ser Val Thr Thr Gly
 1 5 10 15
 Val His Ser Gln Val Gln Leu Gln Gln Ser Asp Ala Glu Leu Val Lys
 20 25 30
 Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe
 35 40 45
 Thr Asp His Ala Ile His Trp Val Lys Gln Lys Pro Glu Gln Gly Leu
 50 55 60
 Glu Trp Ile Gly Tyr Ile Ser Pro Gly Asn Asp Val Ile Lys Phe Asn
 65 70 75 80
 Glu Lys Phe Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser
 85 90 95
 Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Ser Ala Val
 100 105 110
 Tyr Phe Cys Lys Arg Ser Glu Gly Gly Val Phe Asp Tyr Trp Gly Gln
 115 120 125
 Gly Thr Thr Leu Thr Val Ser Ser Glu Ser Gln Ser Phe Pro Asn Val
 130 135 140
 Phe Pro Leu Val Ser Cys Glu Ser Pro Leu Ser Asp Lys Asn Leu Val
 145 150 155 160
 Ala Met Gly Cys Leu Ala Arg Asp Phe Leu Pro Ser Thr Ile Ser Phe
 165 170 175
 Thr Trp Asn Tyr Gln Asn Asn Thr Glu Val Ile Gln Gly Ile Arg Thr
 180 185 190
 Phe Pro Thr Leu Arg Thr Gly Gly Lys Tyr Leu Ala Thr Ser Gln Val
 195 200 205
 Leu Leu Ser Pro Lys Ser Ile Leu Glu Gly Ser Asp Glu Tyr Leu Val
 210 215 220
 Cys Lys Ile His Tyr Gly Gly Lys Asn Arg Asp Leu His Val Pro Ile
 225 230 235 240
 Pro Gly Thr Glu Pro Lys Ser Ala Asp Lys Thr His Cys Pro Pro Cys
 245 250 255
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 260 265 270
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 275 280 285

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
290 295 300

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
305 310 315 320

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
325 330 335

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
340 345 350

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
355 360 365

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
370 375 380

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
385 390 395 400

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
405 410 415

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
420 425 430

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
435 440 445

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
450 455 460

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 4
<211> 239
<212> PRT
<213> Mus musculus

<400> 4

Met Glu Ser Gln Thr Gln Val Phe Leu Ser Leu Leu Leu Trp Val Ser
1 5 10 15

Gly Thr Cys Gly Asn Ile Met Met Thr Gln Ser Pro Ser Ser Leu Ala
20 25 30

Val Ser Ala Gly Glu Lys Val Thr Met Ser Cys Lys Ser Ser Gln Ser
35 40 45

Val Leu Tyr Ser Ser Asn Gln Lys Asn Phe Leu Ala Trp Tyr Gln Gln

50 55 4 60
 Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg
 65 70 75 80
 Glu Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp
 85 90 95
 Phe Thr Leu Thr Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Val Tyr
 100 105 110
 Tyr Cys His Gln Tyr Leu Ser Ser Tyr Thr Phe Gly Gly Gly Thr Lys
 115 120 125
 Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro
 130 135 140
 Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe
 145 150 155 160
 Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp
 165 170 175
 Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp
 180 185 190
 Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys
 195 200 205
 Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys
 210 215 220
 Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

 <210> 5
 <211> 447
 <212> PRT
 <213> artificial sequence

 <220>
 <223> Chimeric mus musculus/homo sapiens

 <400> 5
 Gln Val Gln Leu Gln Gln Ser Asp Ala Glu Leu Val Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp His
 20 25 30
 Ala Ile His Trp Val Lys Gln Lys Pro Glu Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Tyr Ile Ser Pro Gly Asn Asp Val Ile Lys Phe Asn Glu Lys Phe

50		55	5	60															
Lys 65	Gly	Lys	Ala	Thr	Leu 70	Thr	Ala	Asp	Lys	Ser 75	Ser	Ser	Ser	Thr	Ala	Tyr 80			
Met	Gln	Leu	Asn	Ser 85	Leu	Thr	Ser	Glu	Asp 90	Ser	Ala	Val	Tyr	Phe	Cys 95				
Lys	Arg	Ser	Glu 100	Gly	Gly	Val	Phe	Asp 105	Tyr	Trp	Gly	Gln	Gly 110	Thr	Thr				
Leu	Thr	Val 115	Ser	Ser	Ala	Ser	Thr 120	Lys	Gly	Pro	Ser	Val 125	Phe	Pro	Leu				
Ala	Pro 130	Ser	Ser	Lys	Ser	Thr 135	Ser	Gly	Gly	Thr	Ala 140	Ala	Leu	Gly	Cys				
Leu 145	Val	Lys	Asp	Tyr	Phe 150	Pro	Glu	Pro	Val	Thr 155	Val	Ser	Trp	Asn	Ser 160				
Gly	Ala	Leu	Thr	Ser 165	Gly	Val	His	Thr	Phe 170	Pro	Ala	Val	Leu	Gln 175	Ser				
Ser	Gly	Leu	Tyr 180	Ser	Leu	Ser	Ser	Val 185	Val	Thr	Val	Pro	Ser 190	Ser	Ser				
Leu	Gly	Thr 195	Gln	Thr	Tyr	Ile	Cys 200	Asn	Val	Asn	His	Lys 205	Pro	Ser	Asn				
Thr	Lys 210	Val	Asp	Lys	Lys	Ala 215	Glu	Pro	Lys	Ser	Cys 220	Asp	Lys	Thr	His				
Thr 225	Cys	Pro	Pro	Cys	Pro 230	Ala	Pro	Glu	Leu	Leu 235	Gly	Gly	Pro	Ser	Val 240				
Phe	Leu	Phe	Pro	Pro 245	Lys	Pro	Lys	Asp	Thr 250	Leu	Met	Ile	Ser	Arg 255	Thr				
Pro	Glu	Val	Thr 260	Cys	Val	Val	Val	Asp 265	Val	Ser	His	Glu	Asp 270	Pro	Glu				
Val	Lys	Phe 275	Asn	Trp	Tyr	Val	Asp 280	Gly	Val	Glu	Val	His 285	Asn	Ala	Lys				
Thr	Lys 290	Pro	Arg	Glu	Glu	Gln 295	Tyr	Asn	Ser	Thr	Tyr 300	Arg	Val	Val	Ser				
Val 305	Leu	Thr	Val	Leu	His 310	Gln	Asp	Trp	Leu	Asn 315	Gly	Lys	Glu	Tyr	Lys 320				
Cys	Lys	Val	Ser	Asn 325	Lys	Ala	Leu	Pro	Ala 330	Pro	Ile	Glu	Lys	Thr 335	Ile				

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
 340 345 350

Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
 355 360 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
 370 375 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
 385 390 395 400

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
 405 410 415

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
 420 425 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 435 440 445

<210> 6

<211> 216

<212> PRT

<213> artificial sequence

<220>

<223> chimeric mus musculus/homo sapiens

<400> 6

Asn Ile Met Met Thr Gln Ser Pro Ser Ser Leu Ala Val Ser Ala Gly
 1 5 10 15

Glu Lys Val Thr Met Ser Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30

Ser Asn Gln Lys Asn Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45

Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Val Tyr Tyr Cys His Gln
 85 90 95

Tyr Leu Ser Ser Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 100 105 110

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
 115 120 125

7

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
130 135 140

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
145 150 155 160

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
165 170 175

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
180 185 190

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
195 200 205

Pro Val Thr Lys Ser Phe Asn Arg
210 215

<210> 7
<211> 116
<212> PRT
<213> Mus musculus

<400> 7

Gln Val Gln Leu Gln Gln Ser Asp Ala Glu Leu Val Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp His
20 25 30

Ala Ile His Trp Val Lys Gln Lys Pro Glu Gln Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Ser Pro Gly Asn Asp Val Ile Lys Phe Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Lys Arg Ser Glu Gly Gly Val Phe Asp Tyr Trp Gly Gln Gly Thr Thr
100 105 110

Leu Thr Val Ser
115

<210> 8
<211> 112
<212> PRT
<213> Mus musculus

<400> 8

8

Asn Ile Met Met Thr Gln Ser Pro Ser Ser Leu Ala Val Ser Ala Gly
1 5 10 15

Glu Lys Val Thr Met Ser Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
20 25 30

Ser Asn Gln Lys Asn Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Val Tyr Tyr Cys His Gln
85 90 95

Tyr Leu Ser Ser Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 9
<211> 5
<212> PRT
<213> Mus musculus

<400> 9

Asp His Ala Ile His
1 5

<210> 10
<211> 18
<212> PRT
<213> Mus musculus

<400> 10

Tyr Ile Ser Pro Gly Asn Asp Val Ile Lys Phe Asn Glu Lys Phe Lys
1 5 10 15

Gly Lys

<210> 11
<211> 10
<212> PRT
<213> Mus musculus

<400> 11

Lys Arg Ser Glu Gly Gly Val Phe Asp Tyr
1 5 10

<210> 12
<211> 17
<212> PRT
<213> Mus musculus

<400> 12

Lys Ser Ser Gln Ser Val Leu Tyr Ser Ser Asn Gln Lys Asn Phe Leu
1 5 10 15

Ala

<210> 13

<211> 7

<212> PRT

<213> Mus musculus

<400> 13

Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 14

<211> 8

<212> PRT

<213> Mus musculus

<400> 14

His Gln Tyr Leu Ser Ser Tyr Thr
1 5

<210> 15

<211> 331

<212> PRT

<213> Homo sapiens

<400> 15

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
1 5 10 15

Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
20 25 30

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
35 40 45

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
50 55 60

Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln
65 70 75 80

Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
85 90 95

Lys Lys Ala Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
100 105 110

Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
115 120 125

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
130 135 140

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
145 150 155 160

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
165 170 175

Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
180 185 190

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
195 200 205

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
210 215 220

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
225 230 235 240

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

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
260 265 270

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
275 280 285

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
290 295 300

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
305 310 315 320

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 16
<211> 104
<212> PRT
<213> Homo sapiens

<400> 16

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
1 5 10 15

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
20 25 30

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln

<213> Artificial

<220>

<223> PCR primer

<400> 21

aagaattcat ggaatggagc tgggtctttc

30

<210> 22

<211> 29

<212> DNA

<213> Artificial

<220>

<223> PCR primer

<400> 22

aaggtacctg gaatgggcac atgcagatc

29