

DECP_062_01US_SeqList_ST25
SEQUENCE LISTING

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Flynn, Daniel L.
Ahn, YuMi
Vogeti, Lakshminarayana
Caldwell, Timothy Malcolm

<120> 2-AMINOPYRIMIDIN-6-ONES AND ANALOGS EXHIBITING ANTI-CANCER AND
ANTI-PROLIFERATIVE ACTIVITIES

<130> DECP-062/01US 313114-2333

<150> US 61/792,812
<151> 2013-03-15

<160> 3

<170> PatentIn version 3.5

<210> 1
<211> 435
<212> PRT
<213> Homo sapiens

<400> 1

Tyr Lys Tyr Lys Gln Lys Pro Lys Tyr Gln Val Arg Trp Lys Ile Ile
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Pro Tyr Asn Glu Lys Trp Glu Phe Pro Arg Asn Asn Leu Gln Phe Gly
35 40 45

Lys Thr Leu Gly Ala Gly Ala Phe Gly Lys Val Val Glu Ala Thr Ala
50 55 60

Phe Gly Leu Gly Lys Glu Asp Ala Val Leu Lys Val Ala Val Lys Met
65 70 75 80

Leu Lys Ser Thr Ala His Ala Asp Glu Lys Glu Ala Leu Met Ser Glu
85 90 95

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

Leu Gly Ala Cys Thr His Gly Gly Pro Val Leu Val Ile Thr Glu Tyr
115 120 125

Cys Cys Tyr Gly Asp Leu Leu Asn Phe Leu Arg Arg Lys Ala Glu Ala
130 135 140

Met Leu Gly Pro Ser Leu Ser Pro Gly Gln Asp Pro Glu Gly Gly Val
145 150 155 160

Asp Tyr Lys Asn Ile His Leu Glu Lys Lys Tyr Val Arg Arg Asp Ser
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165

170

175

Gly Phe Ser Ser Gln Gly Val Asp Thr Tyr Val Glu Met Arg Pro Val
180 185 190

Ser Thr Ser Ser Asn Asp Ser Phe Ser Glu Gln Asp Leu Asp Lys Glu
195 200 205

Asp Gly Arg Pro Leu Glu Leu Arg Asp Leu Leu His Phe Ser Ser Gln
210 215 220

Val Ala Gln Gly Met Ala Phe Leu Ala Ser Lys Asn Cys Ile His Arg
225 230 235 240

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

Ile Gly Asp Phe Gly Leu Ala Arg Asp Ile Met Asn Asp Ser Asn Tyr
260 265 270

Ile Val Lys Gly Asn Ala Arg Leu Pro Val Lys Trp Met Ala Pro Glu
275 280 285

Ser Ile Phe Asp Cys Val Tyr Thr Val Gln Ser Asp Val Trp Ser Tyr
290 295 300

Gly Ile Leu Leu Trp Glu Ile Phe Ser Leu Gly Leu Asn Pro Tyr Pro
305 310 315 320

Gly Ile Leu Val Asn Ser Lys Phe Tyr Lys Leu Val Lys Asp Gly Tyr
325 330 335

Gln Met Ala Gln Pro Ala Phe Ala Pro Lys Asn Ile Tyr Ser Ile Met
340 345 350

Gln Ala Cys Trp Ala Leu Glu Pro Thr His Arg Pro Thr Phe Gln Gln
355 360 365

Ile Cys Ser Phe Leu Gln Glu Gln Ala Gln Glu Asp Arg Arg Glu Arg
370 375 380

Asp Tyr Thr Asn Leu Pro Ser Ser Ser Arg Ser Gly Gly Ser Gly Ser
385 390 395 400

Ser Ser Ser Glu Leu Glu Glu Glu Ser Ser Ser Glu His Leu Thr Cys
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Cys Glu Gln Gly Asp Ile Ala Gln Pro Leu Leu Gln Pro Asn Asn Tyr
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Gln Phe Cys

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 <212> PRT
 <213> Artificial sequence

<220>
 <223> uKit with N-terminal GST fusion

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Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu Tyr Glu Arg Asp
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Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu Gly Leu Glu Phe
 35 40 45

Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys Leu Thr Gln Ser
 50 55 60

Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn Met Leu Gly Gly
 65 70 75 80

Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu Gly Ala Val Asp
 85 90 95

Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser Lys Asp Phe Glu Thr
 100 105 110

Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu Met Leu Lys Met Phe
 115 120 125

Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn Gly Asp His Val Thr
 130 135 140

His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp Val Val Leu Tyr Met
 145 150 155 160

Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu Val Cys Phe Lys Lys
 165 170 175

Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr Leu Lys Ser Ser Lys
 180 185 190

Tyr Ile Trp Pro Leu Gln Gly Trp Gln Ala Thr Phe Gly Gly Gly Asp
 195 200 205

His Pro Pro Lys Ser Asp Leu Val Pro Arg His Asn Gln Thr Ser Leu
 210 215 220

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Tyr Lys Lys Ala Gly Ser Ala Ala Ala Val Leu Glu Glu Asn Leu Tyr
 225 230 235 240
 Phe Gln Gly Thr Tyr Lys Tyr Leu Gln Lys Pro Met Tyr Glu Val Gln
 245 250 255
 Trp Lys Val Val Glu Glu Ile Asn Gly Asn Asn Tyr Val Tyr Ile Asp
 260 265 270
 Pro Thr Gln Leu Pro Tyr Asp His Lys Trp Glu Phe Pro Arg Asn Arg
 275 280 285
 Leu Ser Phe Gly Lys Thr Leu Gly Ala Gly Ala Phe Gly Lys Val Val
 290 295 300
 Glu Ala Thr Ala Tyr Gly Leu Ile Lys Ser Asp Ala Ala Met Thr Val
 305 310 315 320
 Ala Val Lys Met Leu Lys Pro Ser Ala His Leu Thr Glu Arg Glu Ala
 325 330 335
 Leu Met Ser Glu Leu Lys Val Leu Ser Tyr Leu Gly Asn His Met Asn
 340 345 350
 Ile Val Asn Leu Leu Gly Ala Cys Thr Ile Gly Gly Pro Thr Leu Val
 355 360 365
 Ile Thr Glu Tyr Cys Cys Tyr Gly Asp Leu Leu Asn Phe Leu Arg Arg
 370 375 380
 Lys Arg Asp Ser Phe Ile Cys Ser Lys Gln Glu Asp His Ala Glu Ala
 385 390 395 400
 Ala Leu Tyr Lys Asn Leu Leu His Ser Lys Glu Ser Ser Cys Ser Asp
 405 410 415
 Ser Thr Asn Glu Tyr Met Asp Met Lys Pro Gly Val Ser Tyr Val Val
 420 425 430
 Pro Thr Lys Ala Asp Lys Arg Arg Ser Val Arg Ile Gly Ser Tyr Ile
 435 440 445
 Glu Arg Asp Val Thr Pro Ala Ile Met Glu Asp Asp Glu Leu Ala Leu
 450 455 460
 Asp Leu Glu Asp Leu Leu Ser Phe Ser Tyr Gln Val Ala Lys Gly Met
 465 470 475 480
 Ala Phe Leu Ala Ser Lys Asn Cys Ile His Arg Asp Leu Ala Ala Arg
 485 490 495

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Asn Ile Leu Leu Thr His Gly Arg Ile Thr Lys Ile Cys Asp Phe Gly
500 505 510

Leu Ala Arg Asp Ile Lys Asn Asp Ser Asn Tyr Val Val Lys Gly Asn
515 520 525

Ala Arg Leu Pro Val Lys Trp Met Ala Pro Glu Ser Ile Phe Asn Cys
530 535 540

Val Tyr Thr Phe Glu Ser Asp Val Trp Ser Tyr Gly Ile Phe Leu Trp
545 550 555 560

Glu Leu Phe Ser Leu Gly Ser Ser Pro Tyr Pro Gly Met Pro Val Asp
565 570 575

Ser Lys Phe Tyr Lys Met Ile Lys Glu Gly Phe Arg Met Leu Ser Pro
580 585 590

Glu His Ala Pro Ala Glu Met Tyr Asp Ile Met Lys Thr Cys Trp Asp
595 600 605

Ala Asp Pro Leu Lys Arg Pro Thr Phe Lys Gln Ile Val Gln Leu Ile
610 615 620

Glu Lys Gln Ile Ser Glu Ser Thr Asn His Ile Tyr Ser Asn Leu Ala
625 630 635 640

Asn Cys Ser Pro Asn Arg Gln Lys Pro Val Val Asp His Ser Val Arg
645 650 655

Ile Asn Ser Val Gly Ser Thr Ala Ser Ser Ser Gln Pro Leu Leu Val
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His Asp Asp Val
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<210> 3
<211> 550
<212> PRT
<213> Homo sapiens

<400> 3

Gln Lys Lys Pro Arg Tyr Glu Ile Arg Trp Lys Val Ile Glu Ser Val
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Ser Ser Asp Gly His Glu Tyr Ile Tyr Val Asp Pro Met Gln Leu Pro
20 25 30

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

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

Gly Leu Ser His Ser Gln Ala Thr Met Lys Val Ala Val Lys Met Leu
65 70 75 80

Lys Ser Thr Ala Arg Ser Ser Glu Lys Gln Ala Leu Met Ser Glu Leu
85 90 95

Lys Ile Met Ser His Leu Gly Pro His Leu Asn Val Val Asn Leu Leu
100 105 110

Gly Ala Cys Thr Lys Gly Gly Pro Ile Tyr Ile Ile Thr Glu Tyr Cys
115 120 125

Arg Tyr Gly Asp Leu Val Asp Tyr Leu His Arg Asn Lys His Thr Phe
130 135 140

Leu Gln His His Ser Asp Lys Arg Arg Pro Pro Ser Ala Glu Leu Tyr
145 150 155 160

Ser Asn Ala Leu Pro Val Gly Leu Pro Leu Pro Ser His Val Ser Leu
165 170 175

Thr Gly Glu Ser Asp Gly Gly Tyr Met Asp Met Ser Lys Asp Glu Ser
180 185 190

Val Asp Tyr Val Pro Met Leu Asp Met Lys Gly Asp Val Lys Tyr Ala
195 200 205

Asp Ile Glu Ser Ser Asn Tyr Met Ala Pro Tyr Asp Asn Tyr Val Pro
210 215 220

Ser Ala Pro Glu Arg Thr Cys Arg Ala Thr Leu Ile Asn Glu Ser Pro
225 230 235 240

Val Leu Ser Tyr Met Asp Leu Val Gly Phe Ser Tyr Gln Val Ala Asn
245 250 255

Gly Met Glu Phe Leu Ala Ser Lys Asn Cys Val His Arg Asp Leu Ala
260 265 270

Ala Arg Asn Val Leu Ile Cys Glu Gly Lys Leu Val Lys Ile Cys Asp
275 280 285

Phe Gly Leu Ala Arg Asp Ile Met Arg Asp Ser Asn Tyr Ile Ser Lys
290 295 300

Gly Ser Thr Phe Leu Pro Leu Lys Trp Met Ala Pro Glu Ser Ile Phe
305 310 315 320

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Asn Ser Leu Tyr Thr Thr Leu Ser Asp Val Trp Ser Phe Gly Ile Leu
 325 330 335
 Leu Trp Glu Ile Phe Thr Leu Gly Gly Thr Pro Tyr Pro Glu Leu Pro
 340 345 350
 Met Asn Glu Gln Phe Tyr Asn Ala Ile Lys Arg Gly Tyr Arg Met Ala
 355 360 365
 Gln Pro Ala His Ala Ser Asp Glu Ile Tyr Glu Ile Met Gln Lys Cys
 370 375 380
 Trp Glu Glu Lys Phe Glu Ile Arg Pro Pro Phe Ser Gln Leu Val Leu
 385 390 395 400
 Leu Leu Glu Arg Leu Leu Gly Glu Gly Tyr Lys Lys Lys Tyr Gln Gln
 405 410 415
 Val Asp Glu Glu Phe Leu Arg Ser Asp His Pro Ala Ile Leu Arg Ser
 420 425 430
 Gln Ala Arg Leu Pro Gly Phe His Gly Leu Arg Ser Pro Leu Asp Thr
 435 440 445
 Ser Ser Val Leu Tyr Thr Ala Val Gln Pro Asn Glu Gly Asp Asn Asp
 450 455 460
 Tyr Ile Ile Pro Leu Pro Asp Pro Lys Pro Glu Val Ala Asp Glu Gly
 465 470 475 480
 Pro Leu Glu Gly Ser Pro Ser Leu Ala Ser Ser Thr Leu Asn Glu Val
 485 490 495
 Asn Thr Ser Ser Thr Ile Ser Cys Asp Ser Pro Leu Glu Pro Gln Asp
 500 505 510
 Glu Pro Glu Pro Glu Pro Gln Leu Glu Leu Gln Val Glu Pro Glu Pro
 515 520 525
 Glu Leu Glu Gln Leu Pro Asp Ser Gly Cys Pro Ala Pro Arg Ala Glu
 530 535 540
 Ala Glu Asp Ser Phe Leu
 545 550