

DECP_063_01US_SeqList_ST25
SEQUENCE LISTING

<110> Flynn, Daniel L.
Caldwell, Timothy Malcolm
Kaufman, Michael D.
Patt, William C.
Samarakoon, Thiwanka
Vogeti, Lakshminarayana
Yates, Karen M.

<120> N-ACYL-N'-(PYRIDIN-2-YL) UREAS AND ANALOGS EXHIBITING ANTI-CANCER
AND ANTI-PROLIFERATIVE ACTIVITIES

<130> DECP-063/01US 313114-2335

<150> US 61/789,971
<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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Glu Ser Tyr Glu Gly Asn Ser Tyr Thr Phe Ile Asp Pro Thr Gln Leu
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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

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Asp Tyr Lys Asn Ile His Leu Glu Lys Lys Tyr Val Arg Arg Asp Ser
 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
 405 410 415
 Cys Glu Gln Gly Asp Ile Ala Gln Pro Leu Leu Gln Pro Asn Asn Tyr
 420 425 430

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Gln Phe Cys
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<210> 2
<211> 676
<212> PRT
<213> Artificial sequence

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

<400> 2

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Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu Tyr Glu Arg Asp
20 25 30

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

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
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485

490

495

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
660 665 670

His Asp Asp Val
675

<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
1 5 10 15

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