

LISTA DE SECUENCIAS

<110> Suntory Holdings Limited

<120> Planta de rosa azul y su método de producción

<130> P180461W0

<160> 33

<170> Patente en versión 3.5

<210> 1

<211> 1781

<212> ADN

<213> Viola x wittrockiana

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Phe Ser Asn Arg Pro Pro Asn Ala Gly Ala Ser His Leu Ala Tyr Gly
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Ala Gln Asp Leu Val Phe Ala Lys Tyr Gly Pro Arg Trp Lys Thr Leu
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Arg Lys Leu Ser Asn Leu His Met Leu Gly Gly Lys Ala Leu Asp Asp
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Trp Ala Asn Val Arg Val Thr Glu Leu Gly His Met Leu Lys Ala Met
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Pro Ser Ile Ala Trp Met Asp Leu Gln Gly Ile Glu Arg Gly Met Lys
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Val Leu Leu Glu Glu Cys Asp Asn Thr Asn Gly Glu Lys Leu Ser Ile
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Pro Thr Ile Leu Lys Lys Ala Gln Glu Glu Met Asp Arg Val Ile Gly
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Arg Asp Arg Arg Leu Leu Glu Ser Asp Ile Ser Ser Leu Pro Tyr Leu
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Gln Ala Ile Ala Lys Glu Thr Tyr Arg Lys His Pro Ser Thr Pro Leu
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Leu Ser Glu Glu Asn Gly Lys Ile Asn Pro Gly Gly Asn Asp Phe Glu
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Leu Ile Pro Phe Gly Ala Gly Arg Arg Ile Cys Ala Gly Thr Arg Met
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<211> 1920

<212> ADN

<213> *Glycyrrhiza echinata*

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<213> Glycyrrhiza echinata

<400> 4

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Gly Pro Leu Phe Ser Leu Asn Phe Gly Ser Val Leu Cys Val Val Ala
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Ser Thr Pro His Phe Ala Lys Gln Leu Leu Gln Thr Asn Glu Leu Ala
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Phe Asn Cys Arg Ile Glu Ser Thr Ala Val Lys Lys Leu Thr Tyr Glu
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Lys Leu Ser Met Asn Glu Leu Leu Gly Ser Arg Ser Ile Asn Asn Phe
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Gln His Leu Arg Ala Gln Glu Thr His Gln Leu Leu Arg Leu Leu Ser
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Asn Arg Ala Arg Ala Phe Glu Ala Val Asn Ile Thr Glu Glu Leu Leu
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Lys Leu Thr Asn Asn Val Ile Ser Ile Met Met Val Gly Glu Ala Glu
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Val Pro Met Val Thr Arg Arg Cys Val Ala Glu Cys Thr Val Glu Asn
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Tyr Val Ile Pro Glu Asp Ser Leu Leu Phe Val Asn Val Trp Ser Ile
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Gly Arg Asn Pro Lys Phe Trp Asp Asn Pro Leu Glu Phe Arg Pro Glu
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Pro Gly Val Ser Leu Ala Met Gln Glu Val Pro Ala Leu Leu Gly Ala
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Leu Lys Gly Asp Asp Ile Val Ile Asn Val Asp Glu Arg Pro Gly Leu
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Leu Pro Thr Val Ser Thr Ala Glu Ser Lys His Leu Asp Ala Leu Phe
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Asp Ala Phe Pro Ala Val Arg Arg Leu Asp Phe Glu Leu Ala Pro Phe
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Asp Ala Ser Glu Phe Pro Ser Ala Asp Pro Phe Phe Leu Arg Phe Glu
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Ala Met Arg Arg Ser Ala Pro Leu Leu Gly Pro Leu Leu Thr Gly Ala
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Gly Ala Ser Ala Leu Ala Thr Asp Ile Ala Leu Thr Ser Val Val Ile
115 120 125

Pro Val Ala Lys Glu Gln Gly Leu Pro Cys His Ile Leu Phe Thr Ala
130 135 140

Ser Ala Ala Met Leu Ser Leu Cys Ala Tyr Phe Pro Thr Tyr Leu Asp
145 150 155 160

Ala Asn Ala Gly Asp Gly Gly Gly Val Gly Asp Val Asp Ile Pro Gly
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Val Tyr Arg Ile Pro Lys Ala Ser Ile Pro Gln Ala Leu His Asp Pro
180 185 190

Asn His Leu Phe Thr Arg Gln Phe Val Ala Asn Gly Arg Ser Leu Thr
195 200 205

Ser Ala Ala Gly Ile Leu Val Asn Thr Phe Asp Ala Leu Glu Pro Glu
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Ala Val Ala Ala Leu Gln Gln Gly Lys Val Ala Ser Gly Phe Pro Pro
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Val Phe Ala Val Gly Pro Leu Leu Pro Ala Ser Asn Gln Ala Lys Asp
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Pro Gln Ala Asn Tyr Met Glu Trp Leu Asp Ala Gln Pro Ala Arg Ser
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Val Val Tyr Val Ser Phe Gly Ser Arg Lys Ala Ile Ser Gly Glu Gln
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Leu Arg Glu Leu Ala Ala Gly Leu Glu Thr Ser Gly His Arg Phe Leu
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Ser Val Ala Leu Phe Val Ser His Cys Gly Trp Asn Ser Val Thr Glu
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Gln Arg Val Asn Ser Gly Val Val Ala Arg Ala Gly Leu Gly Val Trp
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Ala Asp Thr Trp Ser Trp Glu Gly Glu Ala Gly Val Ile Gly Ala Glu
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Arg Lys Ala Ala Ser Leu Ala Lys Ala Ala Ala Lys Ala Val Ala Gly
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<400> 8

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His Gly Asp Phe Asn Arg Phe Tyr Ile Gly Gly Asp Thr Ser Gly Ala
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Asn Ile Ala His Asn Ala Ala Leu Arg Val Gly Ala Glu Ala Leu Pro
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Gly Gly Leu Arg Ile Ala Gly Val Leu Ser Ala Phe Pro Leu Phe Trp
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Gly Ser Lys Pro Val Leu Ser Glu Pro Val Glu Gly His Glu Lys Ser
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Ser Pro Met Gln Val Trp Asn Phe Val Tyr Pro Asp Ala Pro Gly Gly
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Gly Arg Ile Ala Ser Phe Leu Val
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ccttag	ccga	catggc	cgtt	aaatac	ggtc	ctataat	gta	cctaaa	actt	ggttca	aagg	420
gcaccg	tcgt	ggcctc	aaat	ccaaa	agccg	cccgag	cctt	cttgaaa	acc	catgat	gcca	480
attttt	ctaa	ccgtcc	gatt	gatggg	ggg	ctacct	acct	cgcgtat	aat	gcaca	agaca	540
tggtttt	tgc	agaat	atggc	ccaaa	atgga	agctttt	tgcg	aaagct	atgt	agctt	gcaca	600
tgtagg	ccc	gaagg	cactc	gaggat	tggg	ctcatg	tcaa	agtttc	agag	gtcgg	tcata	660
tgctcaa	aga	aatgt	acgag	caatc	gagta	agtcag	tgcc	agtgcc	agtg	gtggt	gccag	720
agatgt	ttaac	ttatg	ccatg	gcta	aatat	ga	ttggac	gaat	catact	cagc	cgacg	780
ttgttat	cac	gagcaa	atta	gactc	gtctg	cttctg	cttc	tgcttct	gtt	agtga	attcc	840
aatatat	gggt	tatgg	agctc	atgagg	atgg	cagggt	tgtt	caatatt	gggt	gatttc	atac	900
catatat	tgc	atggat	ggat	ttgca	aggca	ttcaac	gtga	tatga	agggt	atacaga	aaaa	960
agtttg	atgt	cttg	tgaac	aaaat	gatca	aggaac	atac	agaat	ccgct	catgat	cgca	1020
aagata	atcc	tgatttt	ctt	gatatt	ctta	tggcg	gtac	ccaaga	aaaac	acggag	ggaa	1080
ttcagc	ttaa	tcttg	taaat	gtta	aggcac	ttctttt	tga	tttatt	cacg	gcggg	cacgg	1140
atacat	catc	aagt	gtgatc	gaatg	ggcac	tagcc	gaaat	gttga	accat	cgacag	atcc	1200
taaacc	gggc	ccacga	agaa	atggac	caag	tcattg	gcag	aaacaga	aga	ctaga	aacaat	1260
ctgac	atacc	aaact	tgcca	tatttc	caaag	ccatat	gcaa	agaaac	attc	cgaaa	acacc	1320
cttcac	gcc	cttaa	acctc	ccaaga	atct	caacaga	agc	atgtga	agtg	gacgg	atttc	1380
acatac	caaaa	aaac	actaga	cta	atagtga	acatat	gggc	aatagg	gagg	gacc	ctaaag	1440
tgtggg	aaaa	tccatt	agat	tttact	ccgg	aacgttt	ctt	gagtga	aaaa	cacgc	gaaaa	1500
ttgat	ccgcg	aggta	atcat	tttgag	ttaa	tcccatt	tgg	ggctg	gacga	aggat	atgtg	1560

caggggctag aatgggagcg gcctcggtcg agtacatatt aggtacattg gtgcactcat 1620
 ttgattggaa attgcctgat ggagttgtgg aagttaatat ggaagagagc tttgggatcg 1680
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 aagatttgag aaaataaatt attaggtttt gcaccattat gttgagatgg ttgttgtag 1860
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 aaaaaaa 1927

<210> 10
 <211> 523
 <212> PRT
 <213> Campanula medium

<400> 10

Met Ser Ile Asp Ile Ser Thr Leu Phe Tyr Glu Leu Val Ala Ala Ile
 1 5 10 15

Ser Leu Tyr Leu Ala Thr Tyr Ser Phe Ile Arg Phe Leu Phe Lys Pro
 20 25 30

Ser His His His His Leu Pro Pro Gly Pro Thr Gly Trp Pro Ile Ile
 35 40 45

Gly Ala Leu Pro Leu Leu Gly Thr Met Pro His Val Ser Leu Ala Asp
 50 55 60

Met Ala Val Lys Tyr Gly Pro Ile Met Tyr Leu Lys Leu Gly Ser Lys
 65 70 75 80

Gly Thr Val Val Ala Ser Asn Pro Lys Ala Ala Arg Ala Phe Leu Lys
 85 90 95

Thr His Asp Ala Asn Phe Ser Asn Arg Pro Ile Asp Gly Gly Pro Thr
 100 105 110

Tyr Leu Ala Tyr Asn Ala Gln Asp Met Val Phe Ala Glu Tyr Gly Pro
 115 120 125

Lys Trp Lys Leu Leu Arg Lys Leu Cys Ser Leu His Met Leu Gly Pro
130 135 140

Lys Ala Leu Glu Asp Trp Ala His Val Lys Val Ser Glu Val Gly His
145 150 155 160

Met Leu Lys Glu Met Tyr Glu Gln Ser Ser Lys Ser Val Pro Val Pro
165 170 175

Val Val Val Pro Glu Met Leu Thr Tyr Ala Met Ala Asn Met Ile Gly
180 185 190

Arg Ile Ile Leu Ser Arg Arg Pro Phe Val Ile Thr Ser Lys Leu Asp
195 200 205

Ser Ser Ala Ser Ala Ser Ala Ser Val Ser Glu Phe Gln Tyr Met Val
210 215 220

Met Glu Leu Met Arg Met Ala Gly Leu Phe Asn Ile Gly Asp Phe Ile
225 230 235 240

Pro Tyr Ile Ala Trp Met Asp Leu Gln Gly Ile Gln Arg Asp Met Lys
245 250 255

Val Ile Gln Lys Lys Phe Asp Val Leu Leu Asn Lys Met Ile Lys Glu
260 265 270

His Thr Glu Ser Ala His Asp Arg Lys Asp Asn Pro Asp Phe Leu Asp
275 280 285

Ile Leu Met Ala Ala Thr Gln Glu Asn Thr Glu Gly Ile Gln Leu Asn
290 295 300

Leu Val Asn Val Lys Ala Leu Leu Leu Asp Leu Phe Thr Ala Gly Thr
305 310 315 320

Asp Thr Ser Ser Ser Val Ile Glu Trp Ala Leu Ala Glu Met Leu Asn
325 330 335

His Arg Gln Ile Leu Asn Arg Ala His Glu Glu Met Asp Gln Val Ile
340 345 350

Gly Arg Asn Arg Arg Leu Glu Gln Ser Asp Ile Pro Asn Leu Pro Tyr
355 360 365

Phe Gln Ala Ile Cys Lys Glu Thr Phe Arg Lys His Pro Ser Thr Pro
370 375 380

Leu Asn Leu Pro Arg Ile Ser Thr Glu Ala Cys Glu Val Asp Gly Phe
385 390 395 400

His Ile Pro Lys Asn Thr Arg Leu Ile Val Asn Ile Trp Ala Ile Gly
405 410 415

Arg Asp Pro Lys Val Trp Glu Asn Pro Leu Asp Phe Thr Pro Glu Arg
420 425 430

Phe Leu Ser Glu Lys His Ala Lys Ile Asp Pro Arg Gly Asn His Phe
435 440 445

Glu Leu Ile Pro Phe Gly Ala Gly Arg Arg Ile Cys Ala Gly Ala Arg
450 455 460

Met Gly Ala Ala Ser Val Glu Tyr Ile Leu Gly Thr Leu Val His Ser
465 470 475 480

Phe Asp Trp Lys Leu Pro Asp Gly Val Val Glu Val Asn Met Glu Glu
485 490 495

Ser Phe Gly Ile Ala Leu Gln Lys Lys Val Pro Leu Ser Ala Ile Val
500 505 510

Thr Pro Arg Leu Pro Pro Ser Ser Tyr Thr Val
515 520

<210> 11
<211> 1404
<212> ADN
<213> Oryza sativa Japonica Group

<400> 11
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acaaccgcgc tctaattgct tcgatttggg agtaagcttt accaggagca gtgcgatgga	120
ttccagcagc gccgagatcc tcatcgacct cgggtggcttc cggctataca aagatggcca	180
cgccgaccgt gccggcggca tggagagtgt gcctgccggc tacgacgacg agaccggcgt	240
cacgtccaag gacgtcgtca tcgacgctgt caccggcgtg tccgcgcgcc tctacctacc	300
accgtgcatc cagccagcta ccgacgacga cggtaagaag ctcccgatcc tcctcttctt	360
ccatgctggc tacttcgtcg tcgggtcagc gagctggcct cctgtccacc gctacaccaa	420
ctctgtcgtc gcaagcgccc gcgtcgtcgc cgtcgccgtc aactaccgcc tcgcgcccga	480
gcacctgctc ccgacagcct acgacgactc atgggcggcg ctacagctggg cgggtgtccgg	540
cgccgaccct tggttgtccg cgcacgggtga caccggccga gtcttcttgt ccggcgccag	600
cgccggcggg aacatagccc acaacatgac catcgccgtg ggcgtgcgcg gcctggacgc	660
cgtcgtaccg gcgccacgca tagagggcac gatcttgctc cacccttcct tctgcggcga	720
gacgaggatg gaggttgagc cggaggagt tctggggcggc gtcaagaaga gatgggcggt	780
catcttcccc ggcgcgaacg gcgggctgga cgatccgcgg atgaaccga tggccgccgg	840
cgcgccgagc ctgacaaagc tggcgtgcga gaggatgctg gtctgctcgg cggggttcga	900
tccgaggagg acaagggatc gggcgtacta cgacgcagtc aaggccagcg ggtggggacg	960
cgaggtggac tggttcgagt cggaggggtga gggccaccac ttcttcgtcg acaagcccgg	1020
cagccacgag gccagcaagc tcatggaacg agtggctgct ttcatgctg gccattaaac	1080
tgtgcttcca gctggataat ttgcctcgtg tttctaagag caaggataac agtagagctc	1140
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ctataatfff tcttttccta tctctatatc tcacttatac atttattatt tttgtcttgg	1260
agcttgtgat aagctagctc ttgtatgaga gccaatacct ttgatttttt gttacctctc	1320
tactccatat aagcttatag taagcttata gtcactatt atacttgctc taagatgtca	1380
aaatggtgaa tagtttatcc cgaa	1404

<210> 12
 <211> 320
 <212> PRT
 <213> Oryza sativa Japonica Group
 <400> 12

Met Asp Ser Ser Ser Ala Glu Ile Leu Ile Asp Leu Gly Gly Phe Arg
1 5 10 15

Leu Tyr Lys Asp Gly His Ala Asp Arg Ala Gly Gly Met Glu Ser Val
20 25 30

Pro Ala Gly Tyr Asp Asp Glu Thr Gly Val Thr Ser Lys Asp Val Val
35 40 45

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

Ile Gln Pro Ala Thr Asp Asp Asp Gly Lys Lys Leu Pro Ile Leu Leu
65 70 75 80

Phe Phe His Ala Gly Tyr Phe Val Val Gly Ser Ala Ser Trp Pro Pro
85 90 95

Val His Arg Tyr Thr Asn Ser Val Val Ala Ser Ala Arg Val Val Ala
100 105 110

Val Ala Val Asn Tyr Arg Leu Ala Pro Glu His Leu Leu Pro Thr Ala
115 120 125

Tyr Asp Asp Ser Trp Ala Ala Leu Ser Trp Ala Val Ser Gly Ala Asp
130 135 140

Pro Trp Leu Ser Ala His Gly Asp Thr Gly Arg Val Phe Leu Ser Gly
145 150 155 160

Ala Ser Ala Gly Gly Asn Ile Ala His Asn Met Thr Ile Ala Val Gly
165 170 175

Val Arg Gly Leu Asp Ala Val Val Pro Ala Pro Arg Ile Glu Gly Thr
180 185 190

Ile Leu Leu His Pro Ser Phe Cys Gly Glu Thr Arg Met Glu Val Glu
195 200 205

Pro Glu Glu Phe Trp Gly Gly Val Lys Lys Arg Trp Ala Val Ile Phe
210 215 220

Pro Gly Ala Asn Gly Gly Leu Asp Asp Pro Arg Met Asn Pro Met Ala
 225 230 235 240

Ala Gly Ala Pro Ser Leu Thr Lys Leu Ala Cys Glu Arg Met Leu Val
 245 250 255

Cys Ser Ala Gly Phe Asp Pro Arg Arg Thr Arg Asp Arg Ala Tyr Tyr
 260 265 270

Asp Ala Val Lys Ala Ser Gly Trp Gly Arg Glu Val Asp Trp Phe Glu
 275 280 285

Ser Glu Gly Glu Gly His His Phe Phe Val Asp Lys Pro Gly Ser His
 290 295 300

Glu Ala Ser Lys Leu Met Glu Arg Val Ala Ala Phe Ile Ala Gly His
 305 310 315 320

<210> 13
 <211> 1416
 <212> ADN
 <213> Oryza sativa Japonica Group

<400> 13
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 ggcatgggcc acctcgtccc cttcggccgc ctcgccgtgg cgctctcctc cggccacggc 120
 tgcgacgtct ccctcgtcac ggtgctcccc acggtgtcca ccgcggagtc gaagcacctc 180
 gacgcgctgt tcgacgcgtt cccggcggtg cggcggtctg acttcgagct cgcgccgttc 240
 gacgcgtcgg agttccccag cgccgacccg ttcttcctcc ggttcgaggc catgcggcgg 300
 tcggcgccgc tgctcggccc gctcctcacc ggcgccggcg catcggcgct cgccacggac 360
 atcgcgctga catccgtcgt cataccctg gcgaaggagc agggcctccc gtgccacatc 420
 ctcttcaccg cctccgccgc gatgctctcc ctctgcgcct acttccccac atacctcgac 480
 gccaacgctg gcgacggcgg cggcgctcggc gacgtcgaca tccccggcgt gtaccgcatc 540
 cccaaggcct ccatcccga ggcgctgcac gatcccaacc acctcttcac ccgccagttc 600
 gtcgccaacg gccggagcct cagagcgcc gccggcatcc tcgtcaacac gttcgacgcc 660

ttggagccgg aggccgtcgc ggccctgcag cagggcaagg tcgcctccgg cttcccgccg	720
gtgttcgccg tggggccact tctcccggcg agcaaccagg caaaagatcc gcaggcaaac	780
tacatggagt ggctcgacgc gcagccggcg cggtcggtgg tgtacgtgag cttcggcagc	840
cgcaaggcca tctcagggga gcagctcagg gagctcgccg ccgggctgga gaccagcggc	900
cacaggttcc tgtgggtggg gaagagcacc gtcgtggaca gggacgacgc cgccgagctc	960
ggcgagctgc tcggcgaggg gttcttgaag cgggtggaga agcgaggcct cgtcaccaag	1020
gcatgggtgg atcaggaaga ggtcctgaag cacgagtccg tggcgctggt cgtgagccac	1080
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gcggacacct ggagctggga gggggaagcc ggggtgatcg gcgcagagga gatatcggag	1260
aaggtgaagg cggcgatggc ggacgaggcg ttgcgtagga aggcggcgag cctcgccaag	1320
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cggctgtgcc aagggggaac atgtcgact aattga	1416

<210> 14
 <211> 471
 <212> PRT
 <213> Oryza sativa Japonica Group

<400> 14

Met	Pro	Ser	Ser	Gly	Asp	Ala	Ala	Gly	Arg	Arg	Pro	His	Val	Val	Leu
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Ile	Pro	Ser	Ala	Gly	Met	Gly	His	Leu	Val	Pro	Phe	Gly	Arg	Leu	Ala
			20					25					30		

Val	Ala	Leu	Ser	Ser	Gly	His	Gly	Cys	Asp	Val	Ser	Leu	Val	Thr	Val
		35					40					45			

Leu	Pro	Thr	Val	Ser	Thr	Ala	Glu	Ser	Lys	His	Leu	Asp	Ala	Leu	Phe
	50					55					60				

Asp	Ala	Phe	Pro	Ala	Val	Arg	Arg	Leu	Asp	Phe	Glu	Leu	Ala	Pro	Phe
65					70					75					80

Asp Ala Ser Glu Phe Pro Ser Ala Asp Pro Phe Phe Leu Arg Phe Glu
85 90 95

Ala Met Arg Arg Ser Ala Pro Leu Leu Gly Pro Leu Leu Thr Gly Ala
100 105 110

Gly Ala Ser Ala Leu Ala Thr Asp Ile Ala Leu Thr Ser Val Val Ile
115 120 125

Pro Val Ala Lys Glu Gln Gly Leu Pro Cys His Ile Leu Phe Thr Ala
130 135 140

Ser Ala Ala Met Leu Ser Leu Cys Ala Tyr Phe Pro Thr Tyr Leu Asp
145 150 155 160

Ala Asn Ala Gly Asp Gly Gly Gly Val Gly Asp Val Asp Ile Pro Gly
165 170 175

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

Asn His Leu Phe Thr Arg Gln Phe Val Ala Asn Gly Arg Ser Leu Thr
195 200 205

Ser Ala Ala Gly Ile Leu Val Asn Thr Phe Asp Ala Leu Glu Pro Glu
210 215 220

Ala Val Ala Ala Leu Gln Gln Gly Lys Val Ala Ser Gly Phe Pro Pro
225 230 235 240

Val Phe Ala Val Gly Pro Leu Leu Pro Ala Ser Asn Gln Ala Lys Asp
245 250 255

Pro Gln Ala Asn Tyr Met Glu Trp Leu Asp Ala Gln Pro Ala Arg Ser
260 265 270

Val Val Tyr Val Ser Phe Gly Ser Arg Lys Ala Ile Ser Gly Glu Gln
275 280 285

Leu Arg Glu Leu Ala Ala Gly Leu Glu Thr Ser Gly His Arg Phe Leu
290 295 300

Trp Val Val Lys Ser Thr Val Val Asp Arg Asp Asp Ala Ala Glu Leu
305 310 315 320

Gly Glu Leu Leu Gly Glu Gly Phe Leu Lys Arg Val Glu Lys Arg Gly
325 330 335

Leu Val Thr Lys Ala Trp Val Asp Gln Glu Glu Val Leu Lys His Glu
340 345 350

Ser Val Ala Leu Phe Val Ser His Cys Gly Trp Asn Ser Val Thr Glu
355 360 365

Ala Ala Ala Ser Gly Val Pro Val Leu Ala Leu Pro Arg Phe Gly Asp
370 375 380

Gln Arg Val Asn Ser Gly Val Val Ala Arg Ala Gly Leu Gly Val Trp
385 390 395 400

Ala Asp Thr Trp Ser Trp Glu Gly Glu Ala Gly Val Ile Gly Ala Glu
405 410 415

Glu Ile Ser Glu Lys Val Lys Ala Ala Met Ala Asp Glu Ala Leu Arg
420 425 430

Arg Lys Ala Ala Ser Leu Ala Lys Ala Ala Ala Lys Ala Val Ala Gly
435 440 445

Gly Gly Ser Ser His Arg Cys Leu Val Glu Phe Ala Arg Leu Cys Gln
450 455 460

Gly Gly Thr Cys Arg Thr Asn
465 470

<210> 15
<211> 990
<212> ADN
<213> Lotus japonicus

<400> 15
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cgagtctaca aagatggaac cgtggaacgt ctcctaggct ctcctgtcgt tccagcaatc	120
cctcatgacc cagaaacaga ggtctcatca aaagacatag tcatctcaca aaccccctta	180
atctctgctc gtatccacct cccaaaacag agcaaccccc aaaacccaaa ggttccaata	240
ttgatctact accatggtgg tgcgttttgc cttgaatcag ctttctcctt cctccaccaa	300
cgctacctca acatcgtggc ttcacgatca aacgttgtgg tggtttccgt cgagtacagg	360
ctcgcgccag agcatcctct gcctgcagca tatgaagatg gttgggaagc tctgaaatgg	420
gttacctctc attccaccga caacaaaccc atcaactctg agccatgggt gatcgaacat	480
ggtgatttca gcagattcta catcggaggt gacacttcag gtgccaacat cgcataccat	540
gtgggtctcc gtgtcggtag tggagttgag aaattgccag gggatgtgaa aattgcaggg	600
gcgttacttg cttttcccct gttttggagt tcataccctg ttttgaaga acctgttgag	660
gggtttgaac agagtttgag caggaagggt tggaactttg tgtaccaga tgcacctggt	720
gggatcgaca accctctgat caatcctttg gctgatgggg ctccaagctt gacaacgttt	780
ggaagcaaca agatgttgat ctttgttgca gggaatgatg aactgagaga cagaggaatc	840
tggttctatg aggctgtgaa gaagagttag tgggaagggt atgtggaact cattcgagt	900
gatggagagg agcattgctt ccagatttac catcctgaat ctgagaattc taaagacatg	960
atgaagcgca tagcttcttt ccttgtttga	990

<210> 16
 <211> 329
 <212> PRT
 <213> Lotus japonicus

<400> 16

Met	Ala	Ser	Ala	Thr	Thr	Pro	Thr	Lys	Glu	Ile	Asp	Arg	Asp	Leu
1			5					10					15	

Pro	Pro	Leu	Leu	Arg	Val	Tyr	Lys	Asp	Gly	Thr	Val	Glu	Arg	Leu	Leu
		20						25					30		

Gly	Ser	Pro	Val	Val	Pro	Ala	Ile	Pro	His	Asp	Pro	Glu	Thr	Glu	Val
		35					40					45			

Ser	Ser	Lys	Asp	Ile	Val	Ile	Ser	Gln	Thr	Pro	Leu	Ile	Ser	Ala	Arg
	50					55					60				

Ile His Leu Pro Lys Gln Ser Asn Pro Gln Asn Pro Lys Val Pro Ile
65 70 75 80

Leu Ile Tyr Tyr His Gly Gly Ala Phe Cys Leu Glu Ser Ala Phe Ser
85 90 95

Phe Leu His Gln Arg Tyr Leu Asn Ile Val Ala Ser Arg Ser Asn Val
100 105 110

Val Val Val Ser Val Glu Tyr Arg Leu Ala Pro Glu His Pro Leu Pro
115 120 125

Ala Ala Tyr Glu Asp Gly Trp Glu Ala Leu Lys Trp Val Thr Ser His
130 135 140

Ser Thr Asp Asn Lys Pro Ile Asn Ser Glu Pro Trp Leu Ile Glu His
145 150 155 160

Gly Asp Phe Ser Arg Phe Tyr Ile Gly Gly Asp Thr Ser Gly Ala Asn
165 170 175

Ile Ala Tyr His Val Gly Leu Arg Val Gly Gly Gly Val Glu Lys Leu
180 185 190

Pro Gly Asp Val Lys Ile Ala Gly Ala Leu Leu Ala Phe Pro Leu Phe
195 200 205

Trp Ser Ser Tyr Pro Val Leu Glu Glu Pro Val Glu Gly Phe Glu Gln
210 215 220

Ser Leu Ser Arg Lys Val Trp Asn Phe Val Tyr Pro Asp Ala Pro Gly
225 230 235 240

Gly Ile Asp Asn Pro Leu Ile Asn Pro Leu Ala Asp Gly Ala Pro Ser
245 250 255

Leu Thr Thr Phe Gly Ser Asn Lys Met Leu Ile Phe Val Ala Gly Asn
260 265 270

Asp Glu Leu Arg Asp Arg Gly Ile Trp Phe Tyr Glu Ala Val Lys Lys
 275 280 285

Ser Glu Trp Glu Gly Asp Val Glu Leu Ile Arg Val Asp Gly Glu Glu
 290 295 300

His Cys Phe Gln Ile Tyr His Pro Glu Ser Glu Asn Ser Lys Asp Met
 305 310 315 320

Met Lys Arg Ile Ala Ser Phe Leu Val
 325

<210> 17
 <211> 720
 <212> ADN
 <213> Cultivo híbrido de Torenia

<400> 17
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 gagacaagtg cctatccacg agaacatccg cagctcaaag aactaaggag cgcaactgtg 120
 gacaagtatc aatattggag cttgatgaat gttccagctg atgaggggca gttcatttca 180
 atgttactga aaattatgaa cgcaaaaaag acaattgaag ttggagtttt cacaggctac 240
 tcactcctat caactgctct ggctctacct gatgatggca aaatcgttgc cattgatcct 300
 gatagagaag cttatgagac tggtttgcca tttatcaaga aagcaaactg ggctcataaa 360
 atccaatata tacaatctga tgccatgaaa gtcattgaatg acctcattgc tgccaaggga 420
 gaagaagaag aggggagctt tgactttggg ttcgtggatg cagacaaaga aaactacata 480
 aactaccacg agaaactgtt gaagctgggt aagggttgag ggatcatagg atacgacaac 540
 actctgtggt ctggaacagt tgctgcatct gaagacgatg agaataatat gcaagactac 600
 ttaagagggt gcagagggca taccctcaaa ctaaactcct ttctcgcaaa cgatgatcgg 660
 attgaattgg ctcacctctc tattggagat ggactcacct tgtgcaaacg tctcaataa 720

<210> 18
 <211> 239
 <212> PRT
 <213> Cultivo híbrido de Torenia

<400> 18

Met Lys Asp Lys Phe Tyr Gly Thr Ile Leu Gln Ser Glu Ala Leu Ala
1 5 10 15

Lys Tyr Leu Leu Glu Thr Ser Ala Tyr Pro Arg Glu His Pro Gln Leu
20 25 30

Lys Glu Leu Arg Ser Ala Thr Val Asp Lys Tyr Gln Tyr Trp Ser Leu
35 40 45

Met Asn Val Pro Ala Asp Glu Gly Gln Phe Ile Ser Met Leu Leu Lys
50 55 60

Ile Met Asn Ala Lys Lys Thr Ile Glu Val Gly Val Phe Thr Gly Tyr
65 70 75 80

Ser Leu Leu Ser Thr Ala Leu Ala Leu Pro Asp Asp Gly Lys Ile Val
85 90 95

Ala Ile Asp Pro Asp Arg Glu Ala Tyr Glu Thr Gly Leu Pro Phe Ile
100 105 110

Lys Lys Ala Asn Val Ala His Lys Ile Gln Tyr Ile Gln Ser Asp Ala
115 120 125

Met Lys Val Met Asn Asp Leu Ile Ala Ala Lys Gly Glu Glu Glu Glu
130 135 140

Gly Ser Phe Asp Phe Gly Phe Val Asp Ala Asp Lys Glu Asn Tyr Ile
145 150 155 160

Asn Tyr His Glu Lys Leu Leu Lys Leu Val Lys Val Gly Gly Ile Ile
165 170 175

Gly Tyr Asp Asn Thr Leu Trp Ser Gly Thr Val Ala Ala Ser Glu Asp
180 185 190

Asp Glu Asn Asn Met Gln Asp Tyr Leu Arg Gly Cys Arg Gly His Ile
195 200 205

Leu Lys Leu Asn Ser Phe Leu Ala Asn Asp Asp Arg Ile Glu Leu Ala
210 215 220

His Leu Ser Ile Gly Asp Gly Leu Thr Leu Cys Lys Arg Leu Lys
 225 230 235

<210> 19
 <211> 1539
 <212> ADN
 <213> Cultivo híbrido de Torenia

<400> 19
 atggacacag tcttaatcac actctacacc gccctgttcg tcatcaccac caccttcctc 60
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 ggccacctcc acctcctcgg cccaagactc caccacacgt tccatgaatt ctactcaaa 180
 tacggcccat tgatccagct caagctcggc tcgatcccgt gcgtcgtggc ctgacgccc 240
 gagctcgcga gagagtttct taagacgaac gagctcgcgt tctcctctcg caagcactct 300
 acggccatag acatcgtcac ctacgactcg tcctttgctt tctctccgta cggaccctac 360
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 tttcagccca ttaggaatct cgaggtcagg tcctttctgc agcttctgat gcacaagagc 480
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gacatgaccg aacgggtctgg attgaccgct ccgagagcgt tcgatctggt ttgccggttg	1500
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<210> 20
 <211> 512
 <212> PRT
 <213> Cultivo híbrido de Torenia

<400> 20

Met	Asp	Thr	Val	Leu	Ile	Thr	Leu	Tyr	Thr	Ala	Leu	Phe	Val	Ile	Thr
1				5					10					15	

Thr	Thr	Phe	Leu	Leu	Leu	Leu	Arg	Arg	Arg	Gly	Pro	Pro	Ser	Pro	Pro
			20					25					30		

Gly	Pro	Leu	Ser	Leu	Pro	Ile	Ile	Gly	His	Leu	His	Leu	Leu	Gly	Pro
		35					40					45			

Arg	Leu	His	His	Thr	Phe	His	Glu	Phe	Ser	Leu	Lys	Tyr	Gly	Pro	Leu
	50					55					60				

Ile	Gln	Leu	Lys	Leu	Gly	Ser	Ile	Pro	Cys	Val	Val	Ala	Ser	Thr	Pro
65					70					75					80

Glu	Leu	Ala	Arg	Glu	Phe	Leu	Lys	Thr	Asn	Glu	Leu	Ala	Phe	Ser	Ser
			85						90					95	

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

Ala	Phe	Ser	Pro	Tyr	Gly	Pro	Tyr	Trp	Lys	Tyr	Ile	Lys	Lys	Leu	Cys
		115					120					125			

Thr	Tyr	Glu	Leu	Leu	Gly	Ala	Arg	Asn	Leu	Gly	His	Phe	Gln	Pro	Ile
130						135					140				

Arg Asn Leu Glu Val Arg Ser Phe Leu Gln Leu Leu Met His Lys Ser
145 150 155 160

Phe Lys Gly Glu Ser Val Asn Val Thr Asp Glu Leu Val Arg Leu Thr
165 170 175

Ser Asn Val Ile Ser His Met Met Leu Ser Ile Arg Cys Ser Glu Asp
180 185 190

Glu Gly Asp Ala Glu Ala Ala Arg Thr Val Ile Arg Glu Val Thr Gln
195 200 205

Ile Phe Gly Glu Phe Asp Val Thr Asp Ile Ile Trp Phe Cys Lys Lys
210 215 220

Phe Asp Leu Gln Gly Ile Lys Lys Arg Ser Glu Asp Ile Gln Arg Arg
225 230 235 240

Tyr Asp Ala Leu Leu Glu Lys Ile Ile Ser Asp Arg Glu Arg Ser Arg
245 250 255

Arg Gln Asn Arg Asp Lys His Gly Gly Gly Asn Asn Glu Glu Ala Lys
260 265 270

Asp Phe Leu Asp Met Leu Leu Asp Val Met Glu Ser Gly Asp Thr Glu
275 280 285

Val Lys Phe Thr Arg Glu His Leu Lys Ala Leu Ile Leu Asp Phe Phe
290 295 300

Thr Ala Gly Thr Asp Thr Thr Ala Ile Ala Thr Glu Trp Ala Ile Ala
305 310 315 320

Glu Leu Ile Asn Asn Pro Asn Val Leu Lys Lys Ala Gln Glu Glu Ile
325 330 335

Ser Arg Ile Ile Gly Thr Lys Arg Ile Val Gln Glu Ser Asp Ala Pro
340 345 350

Asp Leu Pro Tyr Leu Gln Ala Ile Ile Lys Glu Thr Phe Arg Leu His
355 360 365

Pro Pro Ile Pro Met Leu Ser Arg Lys Ser Thr Ser Asp Cys Thr Val
 370 375 380

Asn Gly Tyr Lys Ile Gln Ala Lys Ser Leu Leu Phe Val Asn Ile Trp
 385 390 395 400

Ser Ile Gly Arg Asn Pro Asn Tyr Trp Glu Ser Pro Met Glu Phe Arg
 405 410 415

Pro Glu Arg Phe Leu Glu Lys Gly Arg Glu Ser Ile Asp Val Lys Gly
 420 425 430

Gln His Phe Glu Leu Leu Pro Phe Gly Thr Gly Arg Arg Gly Cys Pro
 435 440 445

Gly Met Leu Leu Ala Ile Gln Glu Val Val Ser Ile Ile Gly Thr Met
 450 455 460

Val Gln Cys Phe Asp Trp Lys Leu Ala Asp Gly Ser Gly Asn Asn Val
 465 470 475 480

Asp Met Thr Glu Arg Ser Gly Leu Thr Ala Pro Arg Ala Phe Asp Leu
 485 490 495

Val Cys Arg Leu Tyr Pro Arg Val Asp Pro Ala Thr Ile Ser Gly Ala
 500 505 510

<210> 21
 <211> 1434
 <212> ADN
 <213> Gentiana triflora

<400> 21
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<210> 22
 <211> 477
 <212> PRT
 <213> Gentiana triflora

<400> 22

Met	Gly	Ser	Leu	Thr	Asn	Asn	Asp	Asn	Leu	His	Ile	Phe	Leu	Val	Cys
1				5				10					15		

Phe	Ile	Gly	Gln	Gly	Val	Val	Asn	Pro	Met	Leu	Arg	Leu	Gly	Lys	Ala
			20				25					30			

Phe Ala Ser Lys Gly Leu Leu Val Thr Leu Ser Ala Pro Glu Ile Val
35 40 45

Gly Thr Glu Ile Arg Lys Ala Asn Asn Leu Asn Asp Asp Gln Pro Ile
50 55 60

Lys Val Gly Ser Gly Met Ile Arg Phe Glu Phe Phe Asp Asp Gly Trp
65 70 75 80

Glu Ser Val Asn Gly Ser Lys Pro Phe Asp Val Trp Val Tyr Ile Asn
85 90 95

His Leu Asp Gln Thr Gly Arg Gln Lys Leu Pro Ile Met Leu Lys Lys
100 105 110

His Glu Glu Thr Gly Thr Pro Val Ser Cys Leu Ile Leu Asn Pro Leu
115 120 125

Val Pro Trp Val Ala Asp Val Ala Asp Ser Leu Gln Ile Pro Cys Ala
130 135 140

Thr Leu Trp Val Gln Ser Cys Ala Ser Phe Ser Ala Tyr Tyr His Tyr
145 150 155 160

His His Gly Leu Val Pro Phe Pro Thr Glu Ser Glu Pro Glu Ile Asp
165 170 175

Val Gln Leu Pro Gly Met Pro Leu Leu Lys Tyr Asp Glu Val Pro Asp
180 185 190

Tyr Leu His Pro Arg Thr Pro Tyr Pro Phe Phe Gly Thr Asn Ile Leu
195 200 205

Gly Gln Phe Lys Asn Leu Ser Lys Asn Phe Cys Ile Leu Met Asp Thr
210 215 220

Phe Tyr Glu Leu Glu His Glu Ile Ile Asp Asn Met Cys Lys Leu Cys
225 230 235 240

Pro Ile Lys Pro Ile Gly Pro Leu Phe Lys Ile Pro Lys Asp Pro Ser
245 250 255

Ser Asn Gly Ile Thr Gly Asn Phe Met Lys Val Asp Asp Cys Lys Glu
260 265 270

Trp Leu Asp Ser Arg Pro Thr Ser Thr Val Val Tyr Val Ser Val Gly
275 280 285

Ser Val Val Tyr Leu Lys Gln Glu Gln Val Thr Glu Met Ala Tyr Gly
290 295 300

Ile Leu Asn Ser Glu Val Ser Phe Leu Trp Val Leu Arg Pro Pro Ser
305 310 315 320

Lys Arg Ile Gly Thr Glu Pro His Val Leu Pro Glu Glu Phe Trp Glu
325 330 335

Lys Ala Gly Asp Arg Gly Lys Val Val Gln Trp Ser Pro Gln Glu Gln
340 345 350

Val Leu Ala His Pro Ala Thr Val Gly Phe Leu Thr His Cys Gly Trp
355 360 365

Asn Ser Thr Gln Glu Ala Ile Ser Ser Gly Val Pro Val Ile Thr Phe
370 375 380

Pro Gln Phe Gly Asp Gln Val Thr Asn Ala Lys Phe Leu Val Glu Glu
385 390 395 400

Phe Lys Val Gly Val Arg Leu Gly Arg Gly Glu Leu Glu Asn Arg Ile
405 410 415

Ile Thr Arg Asp Glu Val Glu Arg Ala Leu Arg Glu Ile Thr Ser Gly
420 425 430

Pro Lys Ala Glu Glu Val Lys Glu Asn Ala Leu Lys Trp Lys Lys Lys
435 440 445

Ala Glu Glu Thr Val Ala Lys Gly Gly Tyr Ser Glu Arg Asn Leu Val
450 455 460

Gly Phe Ile Glu Glu Val Ala Arg Lys Thr Gly Thr Lys
 465 470 475

<210> 23
 <211> 58
 <212> ADN
 <213> Arabidopsis thaliana

<400> 23
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<210> 24
 <211> 1356
 <212> ADN
 <213> Lavandula angustifolia

<400> 24
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tttgatgatt attttgcgga gggaataaaag ggttga	1356

<210> 25
 <211> 451
 <212> PRT
 <213> Lavandula angustifolia

<400> 25

Met Thr Thr Leu Leu Glu Ser Ser Arg Val Ala Pro Pro Pro Gly Thr	
1 5 10 15	

Val Ala Glu Gln Ser Leu Pro Leu Thr Phe Phe Asp Met Thr Trp Leu	
20 25 30	

His Phe His Pro Met Leu Gln Leu Leu Phe Tyr Glu Leu Pro Cys Ser	
35 40 45	

Lys Pro Ala Phe Leu Glu Thr Val Val Pro Lys Leu Lys Gln Ser Leu	
50 55 60	

Ser Leu Thr Leu Lys His Phe Phe Pro Leu Ser Cys Asn Leu Ile Tyr	
65 70 75 80	

Pro Leu Ser Pro Glu Lys Met Pro Glu Phe Arg Tyr Gln Asn Gly Asp	
85 90 95	

Ser Val Ser Phe Thr Ile Met Glu Ser Ser Asp Asp Tyr Glu Asp Leu	
100 105 110	

Val Gly Asp His Pro His Ser Ala His Lys Tyr Tyr Cys Phe Ala Pro	
115 120 125	

Gln Leu Pro Pro Ile Val Glu Glu Ser Asp Arg Lys Leu Phe Gln Val	
130 135 140	

Leu Ala Val Gln Val Thr Leu Phe Pro Gly Arg Gly Val Cys Ile Gly
145 150 155 160

Ile Thr Thr His His Thr Val Ser Asp Ala Pro Ser Phe Val Gly Phe
165 170 175

Met Lys Ser Trp Ala Ser Ile Thr Lys Phe Gly Gly Asp Asp Glu Phe
180 185 190

Leu Asp Gly Lys Gly Glu Cys Leu Pro Val Phe Asp Arg Ser Leu Val
195 200 205

Asn Tyr Pro Pro Lys Leu Asp Thr Tyr Leu Trp Asn Asn Ala Gln Lys
210 215 220

Arg Pro Leu Glu Ser Gln His Pro Ser Leu Pro Thr Asp Arg Ile Arg
225 230 235 240

Ala Thr Tyr Leu Phe Thr Gln Ser Glu Ile Lys Lys Leu Lys Gly Leu
245 250 255

Ile Gln Arg Lys Ala Pro Asn Val Val Asn Leu Ser Ser Phe Val Ala
260 265 270

Ile Ala Ala Tyr Ile Trp Thr Gly Ile Ala Lys Ser Val Gly Asp Tyr
275 280 285

Lys Asp Val Asp Asp Asp Lys Arg Ala Phe Phe Leu Ile Pro Ile Asp
290 295 300

Leu Arg Pro Arg Leu Asp Pro Pro Ala Pro Gly Asn Tyr Phe Gly Asn
305 310 315 320

Cys Leu Ser Phe Ala Met Ala Lys Ile Leu Arg Arg Asp Leu Val Gly
325 330 335

Asp Glu Gly Val Phe Arg Ala Ala Glu Ala Ile Ala Ala Glu Ile Glu
340 345 350

Lys Arg Thr Ser Asp Lys Lys Ile Leu Glu Thr Val Glu Asn Trp Pro

355

360

365

Ser Glu Ile Arg Glu Ala Leu Gln Asn Cys Tyr Phe Ser Val Ala Gly
 370 375 380

Ser Ser Arg Leu Asp Leu Tyr Gly Ala Asp Phe Gly Trp Gly Lys Ala
 385 390 395 400

Val Lys Gln Glu Ile Leu Ser Ile Asp Gly Glu Lys Phe Thr Met Ser
 405 410 415

Leu Cys Lys Pro Arg Asp Ala Ala Gly Gly Leu Glu Val Gly Leu Ser
 420 425 430

Leu Pro Lys Glu Glu Leu Gln Ala Phe Asp Asp Tyr Phe Ala Glu Gly
 435 440 445

Ile Lys Gly
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<210> 26
 <211> 1344
 <212> ADN
 <213> *Clitoria ternatea* L.

<400> 26
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 ggacacaca cttccaacgc attccttttc actaaacgcc acgtcccaga caacatcagg 180
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 aaactcgatt ttttcctctc cactgggtccc gacaacttgt gcaagggcat tgaacttgcc 300
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caagaagttg tagaggtcgc agaggcattg gaggaaagtg gttttccatt tcttttggcc	900
ctcagtgaat gtctaattgg tgttttgcca aaagggttgg ttgagaggac catgaccctg	960
gggaaagtgg tgtcttgggc accacagtct ctcgttttat cgcattggtc tgttggagta	1020
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gtggaaatga tttcctctag ctaa	1344

<210> 27
 <211> 447
 <212> PRT
 <213> *Clitoria ternatea* L.

<400> 27

Met	Glu	Asn	Asn	Lys	His	Val	Val	Ile	Phe	Pro	Phe	Pro	Phe	Gly	Ser
1				5					10					15	

His	Leu	Pro	Pro	Leu	Leu	Asn	Leu	Val	Phe	Lys	Leu	Ala	His	Ala	Ala
				20				25					30		

Pro	Asn	Thr	Ser	Phe	Ser	Phe	Ile	Gly	Thr	His	Thr	Ser	Asn	Ala	Phe
			35					40				45			

Leu	Phe	Thr	Lys	Arg	His	Val	Pro	Asp	Asn	Ile	Arg	Val	Phe	Thr	Ile
		50				55					60				

Ser	Asp	Gly	Ile	Pro	Glu	Gly	Tyr	Val	Pro	Gly	Asn	Asn	Pro	Ile	Val
65					70					75				80	

Lys Leu Asp Phe Phe Leu Ser Thr Gly Pro Asp Asn Leu Cys Lys Gly

85

90

95

Ile Glu Leu Ala Val Ala Glu Thr Lys Gln Ser Val Thr Cys Ile Ile
 100 105 110

Ala Asp Ala Phe Val Thr Ser Ser Leu Leu Val Ala Gln Thr Leu Asn
 115 120 125

Val Pro Trp Ile Val Phe Trp Pro Asn Val Ser Cys Ser Leu Ser Leu
 130 135 140

Tyr Phe Ser Ile Asp Leu Ile Arg Asp Lys Cys Thr Asn Asp Ala Lys
 145 150 155 160

Asn Ala Ser Leu Asp Phe Leu Pro Gly Leu Ser Lys Leu Arg Val Glu
 165 170 175

Asp Val Pro Arg Pro Gln Ala Ile Val Leu Asp Gly Lys Glu Thr Leu
 180 185 190

Phe Ala Arg Thr Leu Asn Ser Leu Gly Thr Val Leu Pro Gln Ala Lys
 195 200 205

Ala Val Val Val Asn Phe Phe Ala Glu Leu Asp Pro Pro Leu Phe Val
 210 215 220

Lys Asp Met Arg Ser Lys Leu Gln Ser Leu Leu Phe Val Asp Pro Leu
 225 230 235 240

Pro Cys Pro Gln Leu Leu Leu Pro Glu Thr Asp Ser Asn Gly Cys Met
 245 250 255

Ser Trp Leu Asp Ser Lys Ser Ser Arg Ser Val Ala Tyr Val Cys Phe
 260 265 270

Gly Thr Ala Val Ser Leu Pro Pro Gln Glu Val Val Glu Val Ala Glu
 275 280 285

Ala Leu Glu Glu Ser Gly Phe Pro Phe Leu Leu Ala Leu Ser Glu Ser
 290 295 300

Leu Ile Gly Val Leu Pro Lys Gly Leu Val Glu Arg Thr Met Thr Arg
 305 310 315 320

Gly Lys Val Val Ser Trp Ala Pro Gln Ser Leu Val Leu Ser His Gly
 325 330 335

Ser Val Gly Val Phe Val Thr His Cys Gly Ala Asn Ser Val Thr Glu
 340 345 350

Ser Ile Ser Asn Gly Val Pro Met Ile Cys Arg Pro Phe Phe Gly Asp
 355 360 365

Gln Gly Ile Ala Ala Arg Val Ile Gln Asp Ile Trp Glu Ile Gly Val
 370 375 380

Ile Leu Glu Gly Arg Ile Phe Thr Lys Asn Gly Phe Val Lys Asn Leu
 385 390 395 400

Asn Leu Ile Leu Val Gln Glu Glu Gly Lys Lys Ile Arg Asp Asn Ala
 405 410 415

Leu Lys Val Lys Gln Ile Val Gln Asp Ala Ala Gly Pro His Gly Gln
 420 425 430

Ala Ala Glu Asp Phe Asn Thr Leu Val Glu Met Ile Ser Ser Ser
 435 440 445

<210> 28
 <211> 1422
 <212> ADN
 <213> Rosa hibrida

<400> 28
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aaccaacca cacctccgat cttcaccgtc ggaccgttga tctcaggga gagtggagat	780
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ccggtagagg agccaagtgt ggaggaaata ttgccaaagg gttttgtgga aagaacaaag	1020
gataggggac tgggtggtgag gaagtggcg cctcaggtgg aggtactaag tcatgactcg	1080
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agggtttcgg agttcagtaa tgggtggcgtg aaggccaagg aagaaggtgg gtcttctgtt	1380
gcttccttgg ccaagttggc tcagctgtgg aagcaaaaat ga	1422

<210> 29
 <211> 473
 <212> PRT
 <213> Rosa hibrida

<400> 29

Met	Gly	Gly	Asp	Ala	Ile	Val	Leu	Tyr	Pro	Tyr	Pro	Gly	Leu	Gly	His
1				5				10					15		

Leu	Ile	Ser	Met	Val	Glu	Leu	Gly	Lys	Leu	Leu	Leu	Thr	His	His	Pro
			20					25					30		

Ser Phe Ser Ile Thr Ile Leu Ala Ser Thr Ala Pro Thr Thr Ile Ala

35

40

45

Ala Thr Ala Lys Leu Val Ala Ser Ser Asn Asp Gln Leu Thr Asn Tyr
 50 55 60

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

Pro Thr Ile Ser Ser Leu Pro Glu His Ile Glu Lys Leu Asn Leu Pro
 85 90 95

Phe Glu Tyr Ala Arg Leu Gln Ile Pro Asn Ile Leu Gln Val Leu Gln
 100 105 110

Thr Leu Lys Ser Ser Leu Lys Ala Leu Ile Leu Asp Met Phe Cys Asp
 115 120 125

Ala Leu Phe Asp Val Thr Lys Asp Leu Asn Ile Pro Thr Phe Tyr Phe
 130 135 140

Tyr Thr Ser Ala Gly Arg Ser Leu Ala Val Leu Leu Asn Ile Pro Thr
 145 150 155 160

Phe His Arg Thr Thr Asn Ser Leu Ser Asp Phe Gly Asp Val Pro Ile
 165 170 175

Ser Ile Ser Gly Met Pro Pro Ile Pro Val Ser Ala Met Pro Lys Leu
 180 185 190

Leu Phe Asp Arg Ser Thr Asn Phe Tyr Lys Ser Phe Leu Ser Thr Ser
 195 200 205

Thr His Met Ala Lys Ser Asn Gly Ile Ile Leu Asn Thr Phe Asp Leu
 210 215 220

Leu Glu Glu Arg Ala Leu Lys Ala Leu Arg Ala Gly Leu Cys Leu Pro
 225 230 235 240

Asn Gln Pro Thr Pro Pro Ile Phe Thr Val Gly Pro Leu Ile Ser Gly
 245 250 255

Lys Ser Gly Asp Asn Asp Glu His Glu Ser Leu Lys Trp Leu Asn Asn
260 265 270

Gln Pro Lys Asp Ser Val Val Phe Leu Cys Phe Gly Ser Met Gly Val
275 280 285

Phe Ser Ile Lys Gln Leu Glu Ala Met Ala Leu Gly Leu Glu Lys Ser
290 295 300

Gly Gln Arg Phe Leu Trp Val Val Arg Asn Pro Pro Ile Glu Glu Leu
305 310 315 320

Pro Val Glu Glu Pro Ser Leu Glu Glu Ile Leu Pro Lys Gly Phe Val
325 330 335

Glu Arg Thr Lys Asp Arg Gly Leu Val Val Arg Lys Trp Ala Pro Gln
340 345 350

Val Glu Val Leu Ser His Asp Ser Val Gly Gly Phe Val Thr His Cys
355 360 365

Gly Trp Asn Ser Val Leu Glu Ala Val Cys Asn Gly Val Pro Met Val
370 375 380

Ala Trp Pro Leu Tyr Ala Glu Gln Lys Leu Gly Arg Val Phe Leu Val
385 390 395 400

Glu Glu Met Lys Val Ala Val Gly Val Lys Glu Ser Glu Thr Gly Phe
405 410 415

Val Ser Ala Asp Glu Leu Glu Lys Arg Val Arg Glu Leu Met Asp Ser
420 425 430

Glu Ser Gly Asp Glu Ile Arg Gly Arg Val Ser Glu Phe Ser Asn Gly
435 440 445

Gly Val Lys Ala Lys Glu Glu Gly Gly Ser Ser Val Ala Ser Leu Ala
450 455 460

Lys Leu Ala Gln Leu Trp Lys Gln Lys

<210> 30
 <211> 1344
 <212> ADN
 <213> *Perilla frutescens* var. *crispa*

<400> 30
 atgggatttg aattgcacat tggcgttcta gcattccctt tcgggacaca cgctccccct 60
 ctactcgccc tgggtgcggag gctggcagcc tcctcaccgg gcactctatt ttctttcttg 120
 aacagtgcgg agtcaaacgc cgcactgttc aacgagcgca cgtacgataa catacgggcg 180
 tttgatgtgt gggacgggac ccccgaaggc cggattttca ccggaactca tttcgaggcc 240
 gtcgggttgt tcctcaaggc ctcaccgggt aacttcgaca aggttattga agaggcggaa 300
 cgcaaaactg gcctcaaaat ttgctgctta ataactgatg catTTTTgtg gtttgcttgt 360
 gatatggccc agaaaagagg gctgccatgg gtgccattct ggactgctgc ttcctgctct 420
 ctctcttcac acctctacac cgatcaaata gtgaaagcag gaacagcaaa ccaagagcaa 480
 aatctatcgt tcattcccgg attggaaatg gcgaccttga ctgatcttcc gccggaggtt 540
 ttcctggaca acagtccatc gccgctggcg ataacaatca acaaaatggg cgagaagctc 600
 ccaaaatcca ccgccgtcgt cttgaattcc ttcgaagaaa tcgacccgat catcacggat 660
 gacctgaaaa caaaattcaa gaatttcctc aacgtaggcc cttcaattct cgcatacccc 720
 cctcaggcga ctcccagca cgaaacggga tgcctgtcgt ggctggcaga ccaaaccagt 780
 cctaaatcag tgggtgtacat cagcttcggc accgtgatca cgccgccgga aaacgagctg 840
 gcggcattgg ccgacgcctt ggaaatttgc agattcccat ttctttggtc gctgaaagac 900
 tacgccgtga aatccctccc cgacggattc ctcgaccgca cgaaggggtt cgggaagatc 960
 gtggcgtggg ctccgcagca gcaagtgtc gcgcatagaa atgttggagt gttcgtcact 1020
 cactgcggct ggaactccat tctggaaagc atttccagct gcgtgccgct gatttgcagg 1080
 ccttttttcg gcgatcagaa gctcaacagc agaatgggtc aggattcgtg gaaaattggg 1140
 gtcagagttg aaggaggcgt cttcactaag aatgaagcgg ttgaatcttt aaaaaagttg 1200
 atggcgacgg aggcgggaat gaaaattagg gaaaatgtta gtttgctgag agagaaggct 1260
 accgctgcag ttaaaccgga ggggagttcg ttcagaatt tcaagaaact gttagagata 1320
 attggtgcgg cggagagcag ttaa 1344

<210> 31
<211> 447
<212> PRT
<213> *Perilla frutescens* var. *crispa*

<400> 31

Met Gly Phe Glu Leu His Ile Gly Val Leu Ala Phe Pro Phe Gly Thr
1 5 10 15

His Ala Pro Pro Leu Leu Ala Leu Val Arg Arg Leu Ala Ala Ser Ser
20 25 30

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

Leu Phe Asn Glu Arg Thr Tyr Asp Asn Ile Arg Ala Phe Asp Val Trp
50 55 60

Asp Gly Thr Pro Glu Gly Arg Ile Phe Thr Gly Thr His Phe Glu Ala
65 70 75 80

Val Gly Leu Phe Leu Lys Ala Ser Pro Gly Asn Phe Asp Lys Val Ile
85 90 95

Glu Glu Ala Glu Arg Lys Thr Gly Leu Lys Ile Cys Cys Leu Ile Thr
100 105 110

Asp Ala Phe Leu Trp Phe Ala Cys Asp Met Ala Gln Lys Arg Gly Leu
115 120 125

Pro Trp Val Pro Phe Trp Thr Ala Ala Ser Cys Ser Leu Ser Ser His
130 135 140

Leu Tyr Thr Asp Gln Ile Val Lys Ala Gly Thr Ala Asn Gln Glu Gln
145 150 155 160

Asn Leu Ser Phe Ile Pro Gly Leu Glu Met Ala Thr Leu Thr Asp Leu
165 170 175

Pro Pro Glu Val Phe Leu Asp Asn Ser Pro Ser Pro Leu Ala Ile Thr

180

185

190

Ile Asn Lys Met Val Glu Lys Leu Pro Lys Ser Thr Ala Val Val Leu
 195 200 205

Asn Ser Phe Glu Glu Ile Asp Pro Ile Ile Thr Asp Asp Leu Lys Thr
 210 215 220

Lys Phe Lys Asn Phe Leu Asn Val Gly Pro Ser Ile Leu Ala Ser Pro
 225 230 235 240

Pro Gln Ala Thr Pro Asp Asp Glu Thr Gly Cys Leu Ser Trp Leu Ala
 245 250 255

Asp Gln Thr Ser Pro Lys Ser Val Val Tyr Ile Ser Phe Gly Thr Val
 260 265 270

Ile Thr Pro Pro Glu Asn Glu Leu Ala Ala Leu Ala Asp Ala Leu Glu
 275 280 285

Ile Cys Arg Phe Pro Phe Leu Trp Ser Leu Lys Asp Tyr Ala Val Lys
 290 295 300

Ser Leu Pro Asp Gly Phe Leu Asp Arg Thr Lys Gly Phe Gly Lys Ile
 305 310 315 320

Val Ala Trp Ala Pro Gln Gln Gln Val Leu Ala His Arg Asn Val Gly
 325 330 335

Val Phe Val Thr His Cys Gly Trp Asn Ser Ile Leu Glu Ser Ile Ser
 340 345 350

Ser Cys Val Pro Leu Ile Cys Arg Pro Phe Phe Gly Asp Gln Lys Leu
 355 360 365

Asn Ser Arg Met Val Gln Asp Ser Trp Lys Ile Gly Val Arg Val Glu
 370 375 380

Gly Gly Val Phe Thr Lys Asn Glu Ala Val Glu Ser Leu Lys Lys Leu
 385 390 395 400

Met Ala Thr Glu Ala Gly Met Lys Ile Arg Glu Asn Val Ser Leu Leu
405 410 415

Arg Glu Lys Ala Thr Ala Ala Val Lys Pro Glu Gly Ser Ser Ser Gln
420 425 430

Asn Phe Lys Lys Leu Leu Glu Ile Ile Gly Ala Ala Glu Ser Ser
435 440 445

<210> 32
<211> 1383
<212> ADN
<213> Dahlia

<400> 32
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catactcgga aagcacactc caatttcaaa atcttgtgct gattccttgc acgcacttaa 120
agaaaccgac gcgctatagt cgattgaaac aacttcgtat ttcacgcctt tccccaccc 180
aaaatcaatg tcatagaagt tgagtttcgg tgtacccgag atccccatct tcctagccgg 240
aatcttgaaa ccatcatacc atcggtcggc atcttccaat attccccctt tcttgttcac 300
cattttgctt atcccccttc caatcaattt agcagccata acaaattcat tttcaccttt 360
taacacacca ttttttatgg tcacaatata cggcgcgcta cagttaccaa aatagttttc 420
aggaagtggc ggatccaaac gtgatcgaca acccaccgac actataaact gttctaactc 480
gtcttcacct ttcttttccc ccatgttgac taatgacttc acaatacaac tccatatata 540
accacacgtt accgtaaagg aggatgtata ctccagcatt gggagttggg tcaggacttg 600
tttcttaagt ccatgatata gggttcgggc caaaacaaat gtggcccgaa ccctatcaga 660
agaagaacca acaaggctcg gagcttgata aaaagttccg agtcttggtt ggttcaacct 720
gttttcatat agttgtgggt tgacaaccac tctatcaaaa acaggtggag atccgttttt 780
caagaatggc tgatcttcac ctgtttcaca aaccgaagcc cacgccttca ggaaaccgaa 840
ccgagtgttg gcgtcactga ggctatgatg atttgtcaag ccaatagaga tacccgagtt 900
cggaaaatac gtcacttgga ccgagaaaac cgggagtggt acgtaatcgg attctttaac 960
ggcattacct aacggaggga caagcggata aaagttttca catttccgag gatgatttgc 1020
tgacagatcg ttgaaatcaa gagtagtttc tgcgaaagta agcgcgacgg aatcaccttc 1080

cacgtgtcgg atttcgggtt tcctagtgga atcatgaggg tttggatata caataagttt 1140
gccaacaaat gggaaatagt gttgaagtgt gattgataat gagggtttta ggttttggaaat 1200
aacggtttcc gtgaaatggg atttgggaata aggggaagtgg tagaagtaaa gatgatggac 1260
gggtgggaag agtagccatg caatgtcgaa gaaagtgagt ggcaatgaac ggtggccgat 1320
ggtggacggg ggtgggggata ttctagaatg ttctagaatt gttagattgg gaatgttgtc 1380
cat 1383

<210> 33
<211> 460
<212> PRT
<213> Dahlia

<400> 33

Met Asp Asn Ile Pro Asn Leu Thr Ile Leu Glu His Ser Arg Ile Ser
1 5 10 15

Pro Pro Pro Ser Thr Ile Gly His Arg Ser Leu Pro Leu Thr Phe Phe
20 25 30

Asp Ile Ala Trp Leu Leu Phe Pro Pro Val His His Leu Tyr Phe Tyr
35 40 45

His Phe Pro Tyr Ser Lys Ser His Phe Thr Glu Thr Val Ile Pro Asn
50 55 60

Leu Lys His Ser Leu Ser Ile Thr Leu Gln His Tyr Phe Pro Phe Val
65 70 75 80

Gly Lys Leu Ile Val Tyr Pro Asn Pro His Asp Ser Thr Arg Lys Pro
85 90 95

Glu Ile Arg His Val Glu Gly Asp Ser Val Ala Leu Thr Phe Ala Glu
100 105 110

Thr Thr Leu Asp Phe Asn Asp Leu Ser Ala Asn His Pro Arg Lys Cys
115 120 125

Glu Asn Phe Tyr Pro Leu Val Pro Pro Leu Gly Asn Ala Val Lys Glu

130

135

140

Ser Asp Tyr Val Thr Leu Pro Val Phe Ser Val Gln Val Thr Tyr Phe
 145 150 155 160

Pro Asn Ser Gly Ile Ser Ile Gly Leu Thr Asn His His Ser Leu Ser
 165 170 175

Asp Ala Asn Thr Arg Phe Gly Phe Leu Lys Ala Trp Ala Ser Val Cys
 180 185 190

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

Phe Asp Arg Val Val Val Asn Pro Gln Leu Tyr Glu Asn Arg Leu Asn
 210 215 220

Gln Thr Arg Leu Gly Thr Phe Tyr Gln Ala Pro Ser Leu Val Gly Ser
 225 230 235 240

Ser Ser Asp Arg Val Arg Ala Thr Phe Val Leu Ala Arg Thr His Ile
 245 250 255

Ser Gly Leu Lys Lys Gln Val Leu Thr Gln Leu Pro Met Leu Glu Tyr
 260 265 270

Thr Ser Ser Phe Thr Val Thr Cys Gly Tyr Ile Trp Ser Cys Ile Val
 275 280 285

Lys Ser Leu Val Asn Met Gly Glu Lys Lys Gly Glu Asp Glu Leu Glu
 290 295 300

Gln Phe Ile Val Ser Val Gly Cys Arg Ser Arg Leu Asp Pro Pro Leu
 305 310 315 320

Pro Glu Asn Tyr Phe Gly Asn Cys Ser Ala Pro Cys Ile Val Thr Ile
 325 330 335

Lys Asn Gly Val Leu Lys Gly Glu Asn Gly Phe Val Met Ala Ala Lys
 340 345 350

Leu Ile Gly Glu Gly Ile Ser Lys Met Val Asn Lys Lys Gly Gly Ile
355 360 365

Leu Glu Asp Ala Asp Arg Trp Tyr Asp Gly Phe Lys Ile Pro Ala Arg
370 375 380

Lys Met Gly Ile Ser Gly Thr Pro Lys Leu Asn Phe Tyr Asp Ile Asp
385 390 395 400

Phe Gly Trp Gly Lys Ala Met Lys Tyr Glu Val Val Ser Ile Asp Tyr
405 410 415

Ser Ala Ser Val Ser Leu Ser Ala Cys Lys Glu Ser Ala Gln Asp Phe
420 425 430

Glu Ile Gly Val Cys Phe Pro Ser Met Gln Met Glu Ala Phe Gly Lys
435 440 445

Ile Phe Asn Asp Gly Leu Glu Ser Ala Ile Ala Ser
450 455 460