

Sequence Listing

<110> QINGDAO KINGAGROOT CHEMICAL COMPOUND CO., LTD.

<120> Method for generating new gene in organism and use thereof

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<170> SIPOSequenceListing 1.0

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<213> Arabidopsis thaliana PPO gene(Genbank number AT4G01690 sequence)

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 <211> 2463
 <212> DNA
 <213> Rice CP12 gene(GenBank number LOC4325791)

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<211> 744

<212> DNA

<213> Sequence of doubling resulting from pQY002066 transforming protoplast(Artificial Sequence)

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<210> 10

<211> 603

<212> DNA

<213> Sequence of doubling resulting from pQY002068 transforming protoplast(Artificial Sequence)

<400> 10

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aaaaagatag	taacaggcac	atcacacatg	tattcagata	ggtagtaaca	gcacacgtat	540

cctgaacttc agaaataagt agaatgaact agtggcaata acttttcccc ccaaaaacct	600
gtc	603

<210> 11

<211> 477

<212> DNA

<213> Sequence of reversion resulting from pQY002062 transforming protoplast(Artificial Sequence)

<400> 11

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ctggcagctg aaccgccccg gagatctccc tgatgggctg gagcacgac tcctccgcct	120
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<210> 12

<211> 670

<212> DNA

<213> Sequence of deletion resulting from pQY002062 transforming protoplast(Artificial Sequence)

<400> 12

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ccggcgctgc caccgacgac gacgacgagg acgccaccac caccgcctcc cgccgcccc	180
gcgcccgcac ccgcacccgc atccccccgc gcgcccggc gggcagccgc agctgcttcc	240
gcgacgagaa cgccgccgac gccgccacgg cctggtccag ggacaccgcc gccgcagccg	300
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ggtcgagacg ctcgaggggc aggcggcgac gggggcgctg ctcgagaagt cggaaaacccc	660
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<210> 13

<211> 777

<212> DNA

<213> Sequence of reversion resulting from pQY002093 transforming protoplast(Artificial Sequence)

<400> 13

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gcgacgcgga cgccgatggc gcgcccgggc gaggcgggag cggggagcgg aggccgcggc	120
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<210> 14

<211> 635

<212> DNA

<213> Sequence of deletion resulting from pQY002093 transforming protoplast(Artificial Sequence)

<400> 14

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aaatatatat	gtcgcgccaa	atttttctac	tgttactgaa	atttggacac	aaactacaca	540
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<210> 15

<211> 652

<212> DNA

<213> Sequence of reversion resulting from pQY002095 transforming protoplast(Artificial Sequence)

<400> 15

tttgagtaga	ctcgccggcg	cgctcggcgg	tggtgatgtt	gccgccgggg	cgggcgcggg	60
cctccgtgac	gagcacgtcg	ccgacgccgt	gctttgtggc	cagcgctgc	gcggtgcaga	120
gcccgtgat	gccgccgccc	accacgacgc	agtccgccga	caccgcgcc	ccgggcgccg	180
cgggcgcctc	ggccgcgccg	ctggcgacgg	cgacggaac	gtggccgcgt	cggcgggtcc	240
tcctcgcggc	gtcgcgaatg	cggagcggcg	gcgctgccgt	ggcggagggtg	gcggtggcca	300
tggtctgcggc	ggcggcggcc	atgtccgtcg	ctgacatgcg	gatttctgcg	tgtgatgtgg	360
gcgtttgtag	ctgttgcgac	gaggcgttcg	ttgcacggat	tgaagagatg	gggtttatat	420
atatatagct	ccgtgggggtg	ggggagaagg	ggagagagga	ttcgacgacg	tgactcgtt	480
tcctatcgcc	tcctcagcca	atcgctcgtg	gccacgtggg	ctgtattttg	agatatttca	540
tgcgaaatgg	ggacttggca	aaggagatct	ttttcttttc	ccttgggtga	atctaagggtg	600
agagaagcag	ttttaatttg	accgtgaaaa	catgagccaa	aaggaaaaaa	gg	652

<210> 16

<211> 506

<212> DNA

<213> Sequence of deletion resulting from pQY002095 transforming protoplast(Artificial Sequence)

<400> 16

acgcgtgggt	cttccggtag	ctgcgcccgc	gcccacggga	atgcgattcc	cagcccattc	60
------------	------------	------------	------------	------------	------------	----

caccccccttc	ccattccggt	gggccattcc	gaatccaacc	aaccaaccaa	ccatcgaacc	120
cgcacccgca	tcgtatccac	tcctctccag	tctccccgcc	gctccgcatc	ccgcagccgc	180
tcgatgcgga	tttctgctg	tgatgtgggc	gtttgtagct	gttgcgacga	ggcgttcgtt	240
gcacggattg	aagagatggg	gtttatatat	atatagctcc	gtgggggtggg	ggagaagggg	300
agagaggatt	cgacgacgtg	cactcgtttc	ttatcgcttc	ctcagccaat	cgtcgtgtgc	360
cacgtgggct	gtattttgag	atatttcattg	cgaaatgggg	acttggcaaa	ggagatcttt	420
ttcttttccc	ttgggtgaat	ctaaggtag	agaagcagtt	ttaatttgac	cgtgaaaaca	480
tagcccagaa	tgacaaaata	accttt				506

<210> 17

<211> 614

<212> DNA

<213> Sequence of reversion resulting from pQY002098 transforming protoplast(Artificial Sequence)

<400> 17

gcacgtccg	gccgtcggcg	gtggtagatg	tgccgccggg	gcgggcgcgg	gcctccgtga	60
cgagcacgtc	gccgacgccg	tgctttgtgg	ccagcgctg	cgcggtgcag	agcccgtga	120
tgccgccgcc	caccacgacg	cagtccgccg	acacccgcgc	cccgggcgcc	gcgggcgcct	180
cggccgcgcc	gctggcgacg	gcgcagcgaa	cgtggccgcg	tcggcgggtc	ctcctcgcgg	240
cgtcgcgaat	gcggagcggc	ggcgtgccg	tggcggagg	ggcggtagcc	atggctgcgg	300
cggcggcggc	catgttgtgg	gcgtttgtag	ctgttgcgac	gaggcgttcg	ttgcacggat	360
tgaagagatg	gggtttatat	atatatagct	ccgtgggggtg	ggggagaagg	ggaaagagga	420
ttcgacgacg	tgcactcggt	tcttatcgcc	tcctcagcca	atcgtcgtgt	gccacgtggg	480
ctgtattttg	agatatattca	tgcgaaatgg	ggacttggca	aaggagatct	ttttcttttc	540
ccttgggtga	atctaagggtg	agagaagcag	ttttaatttg	accgtgaaaa	catgagccca	600
aattgacaaa	tccc					614

<210> 18

<211> 574

<212> DNA

<213> Sequence of HPPD doubling in QY2091-13(Artificial Sequence)

<400> 18

ggatacgtgt	gctgttacta	cctatctgaa	tacatgtgtg	atgtgcctgt	tactatcttt	60
ttgaatacat	gtatgttctg	ttggaatatg	tttgctgttt	gatccgttgt	tgtgtcctta	120
atcttgtgct	agttcttacc	ctatctgcca	aggcaaccag	caccagagga	caaatccccgt	180
ccgcaaccac	tagacttagc	gtccacgtgg	cgccatctcc	tccctttatt	taacccccca	240
ccaccaactc	ctccccccac	gccgccactg	tcatccactc	ccccacaccc	cacgacgcgc	300
cacgccacgc	cgcgccgcgc	cgcgccatgc	ctccactcc	cacccccacc	gccaccaccg	360
gcgccgtctc	ggccgctgcg	gcggcggggg	agaacgcggg	gttccgcctc	gtcgggcacc	420
gccgcttcgt	ccgcgccaac	ccgcggagcg	accggttcca	ggcgctcgcg	ttccaccacg	480
tcgagctctg	gtgcgccgac	gccgcgtccg	ccgcgggccc	gttcgccttc	gccctggggcg	540
cgccgctcgc	cgccagggtcc	gacctctcca	cggg			574

<210> 19

<211> 551

<212> DNA

<213> Sequence of HPPD doubling in QY2091-20(Artificial Sequence)

<400> 19

aggatacgtg	tgctgttact	acctatctga	atacatgtgt	gatgtgcctg	ttactatctt	60
tttgaataca	tgtatgttct	gttggaaatg	gtttgctgtt	tgtatccgtt	ttgtgtcctt	120

aatcttgtcc	aaggcaacca	gcaccagagg	acaaatcccg	tccgcaacca	ctagacttag	180
cgtccacgtg	gcgccatctc	ctccctttat	ttaaccccc	accaccaact	cctcccccca	240
cgccgccact	gtcatccact	ccccacacc	ccacgacgcg	ccacgccacg	ccgcgccgcg	300
ccgcgccatg	cctcccactc	ccacccccac	cgccaccacc	ggcgccgtct	cggccgctgc	360
ggcggcgggg	gagaacgcgg	ggttccgcct	cgtcgggcac	cgccgcttcg	tccgcgccaa	420
cccgcggagc	gaccggttcc	aggcgctcgc	gttccaccac	gtcgagctct	ggtgcgccga	480
cgccgcgtcc	gccgcggggc	ggttcgcctt	cgccctgggc	gcgccgctcg	ccgccaggtc	540
cgacctctcc	a					551

<210> 20

<211> 155

<212> DNA

<213> Sequence of PP01 reversion in QY2234-20(Artificial Sequence)

<400> 20

tctctctccc	ttctccccca	ccccacggag	ctatatatat	ataaacccca	tctcttcaat	60
ccgtgcaacg	aacgcctcgt	cgcaacagct	acaaacgccc	acaagcaacg	aaggaaatgg	120
gcggccgccc	ccgaaccctg	ggccccggcc	cctcc			155

<210> 21

<211> 447

<212> DNA

<213> Sequence of PP01 reversion in QY2234-205(Artificial Sequence)

<400> 21

cccttctccc	ccacccacag	gagctatata	tatatataacc	ccatctcttc	aatccgtgca	60
acgaacgcct	cgtcgcaaca	gctacaaacg	gacatggccg	ccgccgccgc	agccatggcc	120
accgccacct	ccgccacggc	agcgccgccg	ctccgcattc	gcgacgccgc	gaggaggacc	180
cgccgacgcg	gccacgttcg	ctgcgccgct	gccagcggcg	cggccgaggc	gccccgcggc	240
cccggggcgc	gggtgtcggc	ggactgcgtc	gtgggtggcg	gcggcatcgg	cgggctctgc	300
accgcgcagg	cgctggccac	aaagcacggc	gtcggcgacg	tgctcgtcac	ggaggcccg	360
ccccgccccg	gcggcaacat	caccaccgcc	gagcgcgccg	gcgagggcta	cctctggggag	420
gagggggcca	acagcttcca	gccttcc				447

<210> 22

<211> 463

<212> DNA

<213> Sequence of PP01 reversion in QY2234-207(Artificial Sequence)

<400> 22

cccttctccc	ccacccacag	gagctatata	tatatataacc	ccatctcttc	aatccgtgca	60
acgaacgcct	cgtcgcaaca	gctacaaacg	cccacagtca	gcgacggaca	tggccgccgc	120
cgccgcagcc	atggccaccg	ccacctccgc	cacggcagcg	ccgccgctcc	gcattcgca	180
cgccgcgagg	aggacccgcc	gacgcggcca	cgttcgctgc	gccgtcgcca	gcggcgggc	240
cgaggcgccc	gcggcgcccc	gggcgcgggt	gtcggcggac	tgctcgtgg	tgggcggcgg	300
catcagcggg	ctctgcaccg	cgcaggcgct	ggccacaaag	cacggcgtcg	gcgacgtgct	360
cgtcacggag	gccccgcgcc	gccccggcgg	caacatcacc	accgccgagc	gcgccggcga	420
gggctacctc	tgggaggagg	ggcccaacag	cttccagcct	tcc		463

<210> 23

<211> 388

<212> DNA

<213> Sequence of PP01 reversion in QY2234-580(Artificial Sequence)

<400> 23
cccttctccc ccacccacg gagctatata tatataaacc ccatctcttc aatccgtgca 60
acgaacgcct cgtcgcaaca ggtacatggc cgccgccgcc gcagccatgg ccaccgccac 120
ctccgccacg gcagcgccgc cgctccgcat tcgcgacgcc gcgaggagga cccgccgacg 180
cggccacgtt cgctgcgccg tcgccagcgg cgccggccgag gcgcccgcgg cgccgggggc 240
gcgggtgtcg gcggactgcg tcgtgggtggg cggcggcatc agcgggctct gcaccgcgca 300
ggcgctggcc acaaagcacg gcgtcggcga cgtgctcgtc acggaggccc gcgcccggcc 360
cggcggcaac atcaccaccg ccgagcgc 388

<210> 24
<211> 417
<212> DNA
<213> Sequence of PP01 reversion in QY2234-H5-159(Artificial Sequence)

<400> 24
cccttctccc ccacccacg gagctatata tatataaacc ccatctcttc aatccgtgca 60
acgaacgcct cgtcgcaaca gctacaaacg gacatggccg ccgccgccgc agccatggcc 120
accgccacct ccgccacggc agcgccgccg ctccgcattc gcgacgccgc gaggaggacc 180
cgccgacgcg gccacgttcg ctgcgccgtc gccagcggcg cggccgaggc gcccgcggcg 240
cccggggcgc ggggtgtcggc ggactgcgtc gtgggtggcg gcggcatcag cgggctctgc 300
accgcgcagg cgctggccac aaagcacggc gtcggcgacg tgctcgtcac ggaggcccg 360
gcccgcggcg gcggcaacat caccaccgcc gagcgcgccg gcgagggcta cctctgg 417

<210> 25
<211> 430
<212> DNA
<213> Sequence of PP01 reversion in QY2234-H5-232(Artificial Sequence)

<400> 25
ccttctcccc caccacacgg agctatatat atataaacc catctcttca atccgtgcaa 60
cgaacgcctc gtcgcaacag ctacaaacgc ccgtcagcga cggacatggc cgccgccgcc 120
gcagccatgg ccaccgccac ctccgccacg gcagcgccgc cgctccgcat tcgcgacgcc 180
gcgaggagga cccgccgacg cggccacgtt cgctgcgccg tcgccagcgg cgccggccgag 240
gcgcccgcgg cgccgggggc gcgggtgtcg gcggactgcg tcgtgggtggg cggcggcatc 300
agcgggctct gcaccgcgca ggcgtggcc acaaagcacg gcgtcggcga cgtgctcgtc 360
acggaggccc gcgcccggcc cggcggcaac atcaccaccg ccgagcgcgc cggcgagggc 420
tacctctggg 430

<210> 26
<211> 424
<212> DNA
<213> Sequence of PP01 reversion in QY2234-H5-263(Artificial Sequence)

<400> 26
ataaacccca tctcttcaat ccgtgcaacg aacgcctcgt cgcaacagct acaaagcccc 60
acagtcagcg acggacatgg ccgccgccgc cgagccatg gccaccgcca cctccgccac 120
ggcagcgccg ccgctccgca ttgcgacgc cgagaggagg acccgccgac gcggccacgt 180
tcgctgcgcc gtcgccagcg gcgcggccga ggcccccgcg gcgcccgggg cgccgggtgtc 240
ggcggactgc gtcgtgggtg gcggcggcat cagcgggctc tgcaccgcgc aggcgtggc 300
caciaagcac ggcgtcggcg acgtgctcgt cacggaggcc cgcccccgc ccggcgggcaa 360
catcaccacc gccgagcgcg ccggcgaggg ctacctctgg gaggaggggc ccaacagctt 420
ccag 424

