

Organization Applicant

 Street :
 City :
 State :
 Country :
 Postal Code :
 PhoneNumber :
 FaxNumber :
 Email Address :
 <110> OrganizationName : Evonik Degussa GrbH

Application Project

 <120> Title : Mikrobiologische Herstellung von Aldehyden, insbesondere von
 3-Hydroxypropionaldehyd
 <130> AppFileReference : DG83908
 <140> CurrentAppNumber :
 <141> CurrentFilingDate : ____-__-__

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<212> Type : DNA

<211> Length : 5155

SequenceName : SEQ - I D- Nr. 01

SequenceDescription :

Cust om Codon

Sequence Name : SEQ - I D- Nr. 01

Sequence

Phoeni xTemp33190. t mp. t xt

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Phoeni xTemp33190. t mp. t xt

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Phoeni xTemp33190. t mp. t xt

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Phoeni xTemp33190. t mp. t xt

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Phoeni xTemp33190. t mp. t xt

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PhoenixTemp33190.tmp.txt

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<211> Length : 13098

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SequenceDescription :

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Sequence Name : SEQ-ID-Nr. 02

Sequence

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<212> Type : DNA

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Sequence Name : SEQ-ID-Nr. 03

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Sequence Name : SEQ-ID-Nr. 04

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Sequence Name : SEQ-ID-Nr. 05

Sequence

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35

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<211> Length : 35

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SequenceDescription :

Custom Codon

Sequence Name : SEQ-ID-Nr. 06

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Phoeni xTemp33190. t mp. t xt

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Phoeni xTemp33190. t mp. t xt

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t gat t t aacc ggaaagaaga acagt gaaat t gct at t caa gat ct at t ag cggg agat ac	4080
acaggt gcct gt cgaagt t c gcgggggct t ggct ggt gaa t t t t caaat g aat cagcagt	4140
t ggt at t gct gcgat ggt t a agt ct gat ca t ct t caaat g gaagt aat t g ct aaat t aat	4200
t gaagat gaa t t ccat acga aggt t gagat t ggt ggt gcc gaagt t gaat ct gcaat t cg	4260
cggg gcat t a acgacaccgg gaacagat aa accaat t gca at t ct t gat t t aggt gccgg	4320
ct caacagat gct t caat t a t caat aaaga aaat caaact gt agcaat t c act t agct gg	4380
t gct ggt gac at ggt t acga t gat t at t aa ct ct gaat t g ggat t aaat g acat t cact t	4440
ggcagaggat at t aagcgt at ccat t agc t aaagt cgaa aat ct at t cc aaat t cgt ca	4500
t gaagat gga t cggg acaat t ct t t gaaga t ccgct t ccg t cat cat t gt t t gct cgt gt	4560
t gt t gt aat c aaaccagat g ggt at gaacc ggt t acgggt aat ccaagca t t gagaagat	4620
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at ct gct ct t gact t t gaaa t accacaact agt aacagat gagt t agcac act t t aact t	4800
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cct caat t at cgt aggt gt t gagaat ggaa cagct at t cc t caaaat gca gcaccgct t t	4980
t t aacggaat t gaagaagaa caaat accgg t ggcggg t ag agaaat cgac at t gat aat g	5040
t t gt aagt cg ggcat accag t cggccct cg cct cacgat t at cagt aggg at t gct t t t g	5100
at ggt gat cg at t t at cgt t cact at aaaa act t aaaaga aaacaaacca ct at t t gat a	5160
aaacaat t ag t gat ggt aag caact acgag t t ct aggagc aaat gcagcg cgact agt aa	5220
agggaaat ccc ct t t aaggaa at ggt aaaca ggt gat t t gc at gcaagct t t cgcgagct c	5280
gagat ct aga t at cgat gaa t t gat ccgac gcgaggct gg at ggcct t cc ccat t at gat	5340
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agat gacgac cat cagggaac agct t caagg at cgct cgcg gct ct t acca gcct aact t c	5460

Phoeni xTemp33190. t mp. t xt

gat cact gga ccgct gat cg t cacggcgat t t at gccgcc t cggcgagca cat ggaacgg	5520
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t gcat ggagc cgggccacct cgacct gaat ggaagccggc ggcacct cgc t aacggat t c	5640
accact ccaa gaat t ggagc caat caat t c t t gcggagaa ct gt gaat gc gcaaaccaac	5700
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gggt gt aggt c gt t cgct cca agct gggct g t gt gcacgaa ccccccgt t c agccccgaccg	6060
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act ggcagca gccact ggt a acaggat t ag cagagcgagg t at gt aggcg gt gct acaga	6180
gt t ct t gaag t ggt ggcct a act acggct a cact agaagg acagt at t t g gt at ct gcgc	6240
t ct gct gaag ccagt t acct t cggaaaaag agt t ggt agc t ct t gat ccg gcaaacaac	6300
caccgct ggt agcgtt ggt t t t t t gt t t g caagcagcag at t acgcgca gaaaaaagg	6360
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gccagccgga agggccgagc gcagaagt gg t cct gcaact t t at ccgcct ccat ccagt c	6780
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t t cgat gt aa cccact cgt g caccctaact g at ct t cagca t ct t t t act t t caccagcgt	7320
t t ct ggggt ga gcaaaaacag gaaggcaaaa t gccgcaaaa aagggaat aa gggcgacacg	7380
gaaat gt t ga at act cat ac t ct t cct t t t t caat at t at t gaagcat t t at cagggt t a	7440
t t gt ct cat g agcggat aca t at t t gaat g t at t t agaaa aat aaacaaa t aggggt t cc	7500

Phoeni xTemp33190. t mp. t xt

gcgcacat t t	ccccgaaaag	t gccacct ga	cgt ct aagaa	accat t at t a	t cat gacat t	7560
aacct at aaa	aat aggcgt a	t cagcaggcc	ct t t cgt ct t	caagaat t cc	t gt t at aaaa	7620
aaaggat caa	t t t t gaact c	t ct cccaaag	t t gat ccct t	aacgat t t ag	aaat ccct t t	7680
gagaat gt t t	at at acat t c	aaggt aacca	gccaaact aat	gacaat gat t	cct gaaaaaa	7740
gt aat aacaa	at t act at ac	agat aagt t g	act gat caac	t t ccat aggt	aacaacct t t	7800
gat caagt aa	gggt at ggat	aat aaaccac	ct acaat t gc	aat acct gt t	ccct ct gat a	7860
aaaagct ggt	aaagt t aagc	aaact cat t c	cagcaccagc	t t cct gct gt	t t caagct ac	7920
t t gaaacaat	t gt t gat at a	act gt t t t gg	t gaacgaaag	cccacct aaa	acaaat acga	7980
t t at aat t gt	cat gaaccat	gat gt t gt t t	ct aaaagaaa	ggaagcagt t	aaaaagct aa	8040
cagaaagaaa	t gt aact ccg	at gt t t aaca	cgt at aaagg	acct ct t ct a	t caacaagt a	8100
t cccaccaat	gt agccgaaa	at aat gacac	t cat t gt t cc	agggaaaat a	at t acact t c	8160
cgat t t cggc	agt act t agc	t ggt gaacat	ct t t cat cat	at aaggaacc	at agagacaa	8220
acct gct ac	t gt t ccaaat	at aat t cccc	cacaaagaac	t ccaat cat a	aaaggt at at	8280
t t t t ccct aa	t ccgggat ca	acaaaaggat	ct gt t act t t	cct gat at gt	t t t acaaat a	8340
t caggaat ga	cagcacgct a	acgat aagaa	aagaaat gct	at at gat gt t	gt aaacaaca	8400
t aaaaaat ac	aat gcct aca	gacat t agt a	t aat t cct t t	gat at caaaa	t gacct t t t a	8460
t cct t act t c	t t t ct t t aat	aat t t cat aa	gaaacggaac	agt gat aat t	gt t at cat ag	8520
gaat gagt ag	aagat aggac	caat gaat at	aat gggct at	cat t ccacca	at cgct ggac	8580
cgact cct t c	t cccat ggct	act at cgat c	caat aagacc	aaat gct t t a	cccct at t t t	8640
cct t t ggaat	at agcgcgca	act acaacca	t t acgagt gc	t ggaaat gca	gct gcaccag	8700
cccct t gaat	aaaacgagcc	at aat aagt a	aggaaaagaa	agaat ggcca	acaaacccaa	8760
t t accgaccc	gaaacaat t t	at t at aat t c	caaat aggag	t aacct t t t g	at gcct aat t	8820
gat cagat ag	ct t t ccat at	acagct gt t c	caat ggaaaa	gggt t aacat a	aaggct gt gt	8880
t caccaggt t	t gt act cgca	gggt ggt t t at	t aaaaat cat t	t gcaat at ca	gggt aat gaga	8940
cgt t caaaac	cat t t cat t t	aat acgct aa	aaaaagat aa	aat gcaaagc	caaat t aaaa	9000
t t t ggt t gt g	t cgt aaat t c	gat t gt gaat	aggat gt at t	cacat t t cac	cct ccaat aa	9060
t gagggcaga	cgt agt t t at	agggt t aat g	at acgct t cc	ct ct t t t aat	t gaaccct gt	9120
t acat t cat t	acact t cat a	at t aat t cct	cct aaact t g	at t aaaacat	t t t accacat	9180
at aaact aag	t t t t aaat t c	agt at t t cat	cact t at aca	acaat at ggc	ccgt t t gt t g	9240
aact act ct t	t aat aaaat a	at t t t t ccgt	t cccaat t cc	acat t gcaat	aat agaaaaat	9300
ccat ct t cat	cggct t t t t c	gt cat cat ct	gt at gaat ca	aat cgcct t c	t t ct gt gt ca	9360
t caagggt t t a	at t t t t t at g	t at t t ct t t t	aacaaaccac	cat aggagat	t aacct t t t a	9420
cgggt gt aaac	ct t cct ccaa	at cagacaaa	cgt t t caaat	t ct t t t ct t c	at cat cgggt c	9480
at aaaaat ccg	t at cct t t ac	aggat at t t t	gcagt t t cgt	caat t gccga	t t gt at at cc	9540
gat t t at at t	t at t t t t cgg	t cgaat cat t	t gaact t t t a	cat t t ggat c	at agt ct aat	9600

Phoeni xTemp33190. t mp. t xt

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t t c a t t g c c t   t t t t c c a a a a   t t g a a t c c a t   t g t t t t t g a t   t c a c g t a g t t   t t c t g t a t t c   9660
t t a a a a t a a g   t t g g t t c c a c   a c a t a c c a a t   a c a t g c a t g t   g c t g a t t a t a   a g a a t t a t c t   9720
t t a t t a t t t a   t t g t c a c t t c   c g t t g c a c g c   a t a a a a c c a a   c a a g a t t t t t   a t t a a t t t t t   9780
t t a t a t t g c a   t c a t t c g g c g   a a a t c c t t g a   g c c a t a t c t g   a c a a a c t c t t   a t t t a a t t c t   9840
t c g c c a t c a t   a a a c a t t t t t   a a c t g t t a a t   g t g a g a a a c a   a c c a a c g a a c   t g t t g g c t t t   9900
t g t t t a a t a a   c t t c a g c a a c   a a c c t t t t g t   g a c t g a a t g c   c a t g t t t c a t   t g c t c t c c t c   9960
c a g t t g c a c a   t t g g a c a a a g   c c t g g a t t t a   c a a a a c c a c a   c t c g a t a c a a   c t t t c t t t c g   10020
c c t g t t t c a c   g a t t t t g t t t   a t a c t c t a a t   a t t t c a g c a c   a a t c t t t t a c   t c t t t c a g c c   10080
t t t t t a a a t t   c a a g a a t a t g   c a g a a g t t c a   a a g t a a t c a a   c a t t a g c g a t   t t t c t t t t c t   10140
c t c c a t g g t c   t c a c t t t t c c   a c t t t t t g t c   t t g t c c a c t a   a a a c c c t t g a   t t t t t c a t c t   10200
g a a t a a a t g c   t a c t a t t a g g   a c a c a t a a t a   t t a a a a g a a a   c c c c c a t c t a   t t t a g t t a t t   10260
t g t t t g g t c a   c t t a t a a c t t   t a a c a g a t g g   g g t t t t t c t g   t g c a a c c a a t   t t t a a g g g t t   10320
t t c a a t a c t t   t a a a a c a c a t   a c a t a c c a a c   a c t t c a a c g c   a c c t t t c a g c   a a c t a a a a t a   10380
a a a a t g a c g t   t a t t t c t a t a   t g t a t c a a g a   t a a g a a g a a   c a a g t t c a a a   a c c a t c a a a a   10440
a a a g a c a c c t   t t t c a g g t g c   t t t t t t t a t t   t t a t a a a c t c   a t t c c c t g a t   c t c g a c t t c g   10500
t t c t t t t t t t   a c c t c t c g g t   t a t g a g t t a g   t t c a a a t t c g   t t c t t t t t a g   g t t c t a a a t c   10560
g t g t t t t t c t   t g g a a t t g t g   c t g t t t t a t c   c t t t a c c t t g   t c t a c a a a c c   c c t t a a a a c   10620
g t t t t t a a a g   g c t t t t a a g c   c g t c t g t a c g   t t c c t t a a g g   a a t t c t c a t g   t t t g a c a g c t   10680
t a t c a t c g a t   a a g c t t t a a t   g c g g t a g t t t   a t c a c a g t t a   a a t t g c t a a c   g c a g t c a g g c   10740
a c c g t g t a t g   a a a t c t a a c a   a t g c g c t c a t   c g t c a t c c t c   g g c a c c g t c a   c c c t g g a t g c   10800
t g t a g g c a t a   g g c t t g g t t a   t g c c g g t a c t   g c c g g g c c t c   t t g c g g g a t a   t c g t c c a t t c   10860
c g a c a g c a t c   g c c a g t c a c t   a t g g c g t g c t   g c t a g c   10896

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<212> Type : DNA

<211> Length : 10896

SequenceName : SEQ - I D- Nr. 07

SequenceDescription :

Custom Codon

Sequence Name : SEQ - I D- Nr. 07

Sequence

<213> OrganismName : Klebsiella pneumoniae

<400> PreSequenceString :

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a t g a a a a g a t   c a a a a c g a t t   t g c a g t a c t g   g c c c a g c g c c   c c g t c a a t c a   g g a c g g g c t g   60
a t t g g c g a g t   g g c c t g a a g a   g g g g c t g a t c   g c c a t g g a c a   g c c c c t t t g a   c c c g g t c t c t   120
t c a g t a a a a g   t g g a c a a c g g   t c t g a t c g t c   g a a c t g g a c g   g c a a a c g c c g   g g a c c a g t t t   180
g a c a t g a t c g   a c c g a t t t a t   c g c c g a t t a c   g c g a t c a a c g   t t g a g c g c a c   a g a g c a g g c a   240
a t g c g c c t g g   a g g c g g t g g a   a a t a g c c c g t   a t g c t g g t g g   a t a t t c a c g t   c a g c c g g g a g   300
g a g a t c a t t g   c c a t c a c t a c   c g c c a t c a c g   c c g g c c a a a g   c g g t c g a g g t   g a t g g c g c a g   360

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Phoeni xTemp33190. t mp. t xt

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gagggcggga t ccgcggt t ct cagaacag	gagaccacgg t cggat at cgc gcgct acgcg	540
ccgt t t aacg ccct ggcgct gt t ggt cgg	t cgcagt gcg gccgccccg cgt gt t gacg	600
cagt gct cgg t ggaagaggc caccgagct g	gagct gggca t gcgt ggggt t aaccagct ac	660
gccgagacgt t gt cggct ct a cggcaccgaa	gcggt at t t a ccgacggcga t gat acgccg	720
t ggt caaagg cgt t cct cgc ct cggcct ac	gcct cccgcg ggt t gaaaat gcgct acacc	780
t ccggcaccg gat ccgaagc gct gat gggc	t at t cggaga gcaagt cgat gct ct acct c	840
gaat cgcgct gcat ct t cat t act aaaggc	gccgggggt t c agggact gca aaacggcgcg	900
gt gagct gt a t cggcat gac cggcgct gt g	ccgt cgggca t t cgggcggt gct ggcggaa	960
aacct gat cg cct ct at gct cgacct cgaa	gt ggcgt ccg ccaacgacca aact t t ct cc	1020
cact cggat a t t cggcgac cgcgcgcacc	ct gat gcaga t gct gccggg caccgact t t	1080
at t t t ct ccg gct acagcgc ggt gccgaac	t acgacaaca t gt t cggcg ct cgaact t c	1140
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gat t acct gc agacct cggc cat t ct cgat	cggcagt t cg aggt ggt gag t gcggt caac	1560
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gct t ct gccg at gaacgcgc cgat gaagt g	gt gat cggcg t cggccct gc ct t cgat aaa	1800
caccagcat c acact ct gat cgat at gcc	cat ggcgcga t cct caaaga gct gat t gcc	1860
ggggt ggaag aagaggggct t cagccccg	gt ggt gcgca t t ct gcgcac gt ccgacgt c	1920
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cgct at gcgc gcaaagagt c acct t cgccg	gt gccggt gg t gaacgat ca gat ggt gcgg	2160
ccgaaat t t a t ggccaaagc cgcgct at t t	cat at caaag agaccaaaca t gt ggt gcag	2220
gacgccgagc ccgt caccct gcacat cgac	t t agt aaggg agt gaccat g agcgagaaaa	2280
ccat gcgct gcaggat t at ccgt t agcca	cccgt gccg ggagcat acc ct gacgcct a	2340
ccggcaaacc at t gaccgat at t acct cg	agaagggt gct ct ct ggcgag gt gggccgc	2400
aggat gt gcg gat ct cccgc cagaccct t g	agt accaggc gcagat t gcc gagcagat gc	2460

Phoeni xTemp33190.t mp. t xt

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agcgccatgc ggtggcgcgc aatttccgcc gcgcggcgga gcttatcgcc attcctgacg 2520
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tggcgatcgc cgacgagctg gagcacacct ggcatgcgac agtgaatgcc gcctttgtcc 2640
gggagtcggc ggaagtgtat cagcagcggc ataatgctacg taaaggaagc taa 2693

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<212> Type : DNA
<211> Length : 2693
SequenceName : SEQ-ID-Nr. 08
SequenceDescription :

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Custom Codon

Sequence Name : SEQ-ID-Nr. 08

Sequence

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<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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<212> Type : DNA
<211> Length : 55
SequenceName : SEQ-ID-Nr. 09
SequenceDescription :

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Custom Codon

Sequence Name : SEQ-ID-Nr. 09

Sequence

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<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
gacatggtat atctccttag cticctttac gtagcttatg cc 42

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<212> Type : DNA
<211> Length : 42
SequenceName : SEQ-ID-Nr. 10
SequenceDescription :

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Custom Codon

Sequence Name : SEQ-ID-Nr. 10

Sequence

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<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
ggaagctaag gagatatacc atgtcgcttt cacc 34

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<212> Type : DNA
<211> Length : 34
SequenceName : SEQ-ID-Nr. 11
SequenceDescription :

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Custom Codon

Sequence Name : SEQ-ID-Nr. 11

Sequence

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<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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<212> Type : DNA

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<211> Length : 33
 SequenceName : SEQ - I D- Nr. 12
 SequenceDescription :

Cust om Codon

Sequence Name : SEQ - I D- Nr. 12

Sequence

<213> OrganismName : pWH1520- SHGDH22

<400> PreSequenceString :

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acagcccctt t gaccgggt c t ct t cagt aa aagt ggacaa cgggt ct gat c gt cgaact gg      180
acggcaaacg ccgggaccag ttt gacat ga t cgaccgat t t at cgccgat t acgcgat ca      240
acgt t gagcg cacagagcag gcaat gcgcc t ggaggcggg ggaaat agcc cgt at gct gg      300
t ggat att ca cgt cagccgg gaggagat ca tt gccat cac t accgccat c acgccggcca      360
aagcggg cga ggt gat ggcg cagat gaacg t ggt ggagat gat gat ggcg ct gcagaaga      420
t gcgt gcccg ccggaccccc t ccaaccagt gccacgt cac caat ct caaa gat aat ccgg      480
t gcagat t gc cgct gacgcc gccgaggccg ggat ccgchg ct t ct cagaa caggagacca      540
cgggt cgggt at cgcgcgct ac gcgccgt t t a acgccct ggc gct gt t ggt c ggt t cgcagt      600
gcggccgccc cggcgt gt t g acgcagt gct cgggt ggaaga ggccaccgag ct ggagct gg      660
gcat gcgt gg gt t aaccagc t acgccgaga cgt t gt cgggt ct acggcacc gaagcgggt at      720
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gcgggt t gaa aat gcgct ac acct ccggca ccggat ccga agcgct gat g ggct at t cgg      840
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Phoeni xTemp33190. t mp. t xt

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gcat t ct gcg	cacgt ccgac	gt ct cct t t a	t ggcct ggga	t gcggccaac	ct gagcggct	1980
cggggat cgg	cat cgggt at c	cagt cgaagg	ggaccacggt	cat ccat cag	cgcgat ct gc	2040
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ccgt t aagt g	agagaaact g	aagat cct ag	gaggt t t aaa	cat at gccgt	t aat agccgg	3120
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Phoeni xTemp33190. t mp. t xt

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Phoeni xTemp33190. t mp. t xt

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Phoeni xTemp33190. t mp. t xt

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gt t t t caat a c t t t aaaaca cat acat acc aacact t caa cgcacct t t c agcaact aaa	10020

Phoeni xTemp33190. t mp. t xt

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<212> Type : DNA

<211> Length : 10600

SequenceName : SEQ - I D- Nr. 13

SequenceDescription :

Custom Codon

Sequence Name : SEQ - I D- Nr. 13