

Additional Data 2:

The alignment of binding core in 5 candidate gene promoters: T-COFFEE program (<http://www.ch.embnet.org/software/TCoffee.html>) was used to align the 5 candidate sequences. T-COFFEE report is shown below.

```
=====
T-COFFEE, Version_1.41(Fri Jun 28 14:24:48 MDT 2002)
Notredame, Higgins, Heringa, JMB(302)pp205-217,2000
CPU TIME:0 sec.
SCORE=62
*
  BAD  AVG  GOOD
*
SMYD1      :   62
ACVRL1     :   58
MCM5       :   65
VEGF       :   63
SIN3B      :   63

SMYD1      CTTGAACTCCTGACCTCAGATGATCCATGTGCCTCGG-
ACVRL1     CTCGAACTCCTGACCTCAGCTGATCCACCCAC-TCAGC
MCM5       CTTGAACTCCTGACCTCAGGTGATCCACCCGCCTGAG-
VEGF       CTCAAATCCTGACCTCAGGTGATCCACCCGCCTCAG-
SIN3B      CTTGAACTCCTGGCCTCATGTGATCCACCCACCTCTG-

Cons       **  *****  *****  *****  *  *  *
=====
```

The promoters of candidate genes: The sequences shown below are 5 prime sequences of 5 candidate genes. All the sequences are derived from UCSC genome browser (<http://genome.ucsc.edu>). The sequences include 3000 bp 5 prime ends from the first exon, cap letters indicate the first exons. Boxed regions indicate the binding cores.

SMYD1 (NM_198274) at chr2:88148497-88194015 - SET and MYND domain containing 1

gagtagctgggactacagggcgtgtgccactacgcccagctaatttttgtatttttagtagagacgcggttt
caccatgttaggcaggatgggttcaatctcctggcctcgtgatctgcctgccttggcctctcaaagtgtg
ggattacagggaaaaaacctttttaatatctcctcctcctcctccttccctgaaaacccctccccctcc
ccttcacttcgctttccctccctccctccctccctccctccctccctccctccctccctccctccctcc
tccccctccctcttttttccctgagacaagagcttgctctgctactcctccctccctccctccctccctcc
ctccccccctccctccctccctccctccctccctccctccctccctccctccctccctccctccctcc
ctcttttttttctgagacaagatcttgctctgtcaccaggctggaatgcagtggcatgatcatggctccc
tgcaacctctgcctcatgagctcaagtggctcccacctcagcctcctgagtagatgagactacaggcat
gcgccaccatgcctgggtttatttttgtatttttggtagagacagggtttcaccatgttgcccaggctagt
ctcaaaccctgggctcaagtgattcacccgcctcggcctcccaaagtgtgggattacaggcatgagcca
ctgcgcctggccttctttctcttt
gctggagtgcagtggcgtgatcttggtcactgcaagctctgcctccccgggttacgccattctcctgcct
cagcctcccagtagctgggaccacaggcgccggccaccacgcccagctaatttttgtatttttagtagag
acggagtttcaccgtgttagccaggatggctctcgatctcctgacctgtgatccacctgcctcgccctcca
aagtgtctgggattacaggcgtgagccactgtgcccggcctctttctctttttttaactctctgtttttag
aattgtttttcccttgggagcatgcagtgtttacttttttagggcacctaactttacatgtcttaagttat
tttgctcttcagtgatgcacagagctgcagagatatctcttgctgtcatggctatgtattcttacctaa
aaatcaggatatatgatcagacaatgaactttcaacatgcttccaagagtcgaagggttttgggagattc
aattgggtgaagacatgttaaaatttctggtacatcgtgatagtttagggaggataatgtgacagagtaaa
taaaatagaatagctatcacttaatgagtactttatgaagtgttaagtgtgtgttatccccctttacata
ttatctaactctcacaatccagtgaggtagaaattatcaccttggtttcacagggtccatctcaagtggta
gtagcaggcttagaattcaaaactcagattcatctgactcagaaaccatacactcagaaaaatccaggaaat
gccccctgcccactgccccccacccccgcgctcacccccaccccccaacccccaccaggaaatagatgcaccc
caggaaactaaaaatcttacatggaagtcaagccagagctccagatctgcaagtgtatttcttttaaacctc
agtaaaagctgcctgatagccaagaacagtggtatttagttcaacggggatttttagattcgtctttccagt
gtcctcactcctgagtaagaagaaggacagagcacgttggtattttcctggcagcagacacatgttaaagg
aaatttgatagaaagatagagatgggggttgctatttttatagcctgccttgctgtatccagcctgcctc
cagcataccagcatcaccagcagtgctaagaacagggaattccatgctgtggagtagggggtgctgtaaga
gccccagggtgatactggagaggaaaaatgcccccttgagacctaaatagtactgttacgtatatgccagg
gctcagtttagcttcttcttattattttattttattttattttattttattttaattttttgttgagacg
gggtcccactctgtcgcccaggctggagtgcaatggcgcgatctcggtcactgcaacctctgcctcccag
gttcaagcaattctcctgcctcagcctcctcagtagctgggattacaggcgcccgccaccacgcccagcta
atttttgtatttttggtagagacgggtttcaccatgttggtcaggctgggtcttgaactcctgacctcaga
tgatccatgtgcctcggcctcccaagggtggggattacaggcgtgagccaccgtgcccagccctcagtttag
cttctgctgctaacaagctccacccttgggagagagactgaaaagggtggggcgagggcccatctcacttga
gaaagtgaagcctgacagctgaagggtcccagagcagcaaatatcaccttggttctatgggaccattcca
gctgtctgctttttagattgacagaggcatctggctgctaaaaataccctcctgaccaaatgttccctactcc
aactaaagccgaacaggattgttgagttcagaacttagcacatacagatagcttctgcttgaatggaac
ctctcaaaacttttcaggccctatgccatattaacccatgggtcattttctgttctgtcggctttgtggtg
gatgaatgaaactcttcccagttcacttggtctctgtctgtcccatccccacctccaggaaaagtagcag
agggggagggtgagggccagtagctgagagcgagtagggaaggggagggtggctgtccatttatagtcttg
ctctttgggatgctgaagggtgctgaaatagcaatgacaagagacttggtcagtggttaataaactgccgcg
ctggcctgacagctctctgAGATGACAATAGGGAGAATGGAGAACGTGGAGGTCTTCACCGCTGAGGGCAA
GGAAGGGGTCTGAAGGCCACCAAGGAGTTCTGGGCTGCAGATATCATCTTTGCTGAGCGGGCTTATTCGC
AGTGGTTTTTGACAG

[ACVRL1 \(NM_000020\) at chr12:50587469-50601120](#) - activin A receptor type II-like 1

ataagtgtaacaaaacacataaaggaggttaaagtctgaaaactacaagaacactgataaataaaagagacc
taaataaatggaaaaaaatatatcattaagaattttaagatggcaatgacagcgcattaaaccaagcatg
gggccctgtgcatctgcacaggtcacactcccatgaagccagccccgcactagtatcaagagtgatgtttg
agtctgggtgggtggcttatgcctgtaatctcagcactttgggaggctgagtggtggatcagctgaggt
caggagttcagagaccagcctgtacaacatggtgaaaccccgctctactaaaaatacaaacattagccagg
cgtggaggcacgcatctgtaatcccagctacttgggagactgagacaggagaatcacttgaacctgggagg
cagacctgagatcacgcaactgcactccagcctgggagacactgtgagactccatctcaaaaaaaaaagaa
tgatgcttgaacttaatactcatagctggtcctgaaaggtgaaggtgtccattgccctgccttcctgacag
actccatgtcacccaccttccacagatgagaatctgcttgaggtttcacccacacagaatctccaggcct
ctgcttcctgcagtgttgggaaatccttctgagtatctaaatctaaatctttgtcctttgggcctgtttcc
tcttgttctgtcctcactgaatatggggaacagctggtccctctgagtaattaattctttagacttggac
acagtctgtaattccttttcccttttctcattgggatgactctccagggttttctccaactctggatctcc
aactctgacacctccccaggttctctgtgtgctttggaaggcatggggttcacaagagcccaaagagca
ccagtcaggggcccagagggtcagtgctctggggagatggggaagattccagcactgatgaacagactcca
gcccccttgggtcctctcttccagctcccaaaatgtactctatttttatctgtttcacgaacgctggtcc
agatagctctccatccccactgactgttagaagtgactctcagcttttgtccatctcgaagtctctgtgc
tcagtgtgcctctcagactaaaggcttcccttgggaaggcccgactctcgcttctcaggagagatccag
gggttgggggaggaaaagggttgaccagaagccatagcggagcaggagagagagtgtgaaagacagaccg
cggccaggctcccagttctccagctcgtagaggggcccaagtggccgctataatctgaaagagcagatatcg
taatcccatagttacttcttattggctgcaggacacagttctgtcctgacactgaaatttgggtgtgtcagg
gttctgggaattcacaacgctcacaacttgtgaagcagctgtggggtgggggatggggagggtttcagcag
aggaagtgaggtcagtcataattgatgcctgtctgagcttttagccattatctccccagcctctattcc
tgtcaaaagggtggggcggggcaggaggagggtccctggctcatctttagaatacccatattagagtaag
acaccttagaggtctactcctgttcttaataccacgctcttccaagtgtctctgaggccacccccctccc
agccttttcatttattcatttaattaacgaacgccttcattgagggcctcctctgagtcaggctcagccag
ccagcatctttgctatgagctgagataagcatcatttccgtctattctcacaaccacctatgaggctggc
acggtttactatgcctattttagcagatgggggactgaagcatggagaggtgtcactagcctacggtaacac
aaccagcctgcatttcttagtaggttagtttgacttcagagtctctgtggataaccaggagggttaggactaag
accagagtcttgcagggtacttagatggttggagcaaagcagggcagtgaggtcagtgctcccagcctgtgc
aggagcatcaggaagagtctgtgtccccctccccctgccggtatgaagccattctgttccccctccccagctg
ccttgtgtcagcagagttccaggagggtccattccccacctctatctaaagctccatttgttgggtggg
ggccttgcctggaaggggaagggtccaaggctgtcccagcgtgtccctccatcctgactgtccctggcggg
gcgggggtgtctttgtcacccagctgcacaacggccaggaagggtcaaaccatcctcagggtcaaccaa
ggaatgggggacgaaggggcccagggaggggactgaaggatttgggccaagtgggagttcccagggcg
gagtcaaaacgcatctggattttgctagccccaaactctgccctcatttctgcaagcctcctagaccgagg
acccccgggtgaggggtggggttaaggataggttagtgcctccccgtcccacccccgcctgtcccttctc
ggtggcccccttcccggcgccccgattccaggcgggccccctccgtgtgtgccagccgatccccctctacccc
accactactccggccgcccagacgttgcctacagtctcggtctgtctcccacggctgtgggtccggaccc
cacgggacccccatgggacccccacaggacccccacggcctgagtccaaggccccgccccctcggggaggcg
gatgtgggaggcccgcccggtgctggggccagcgacccgggagctgctggggcggtgggaggggaggccgcc
ctgaggggctgggagcgggcggggggtgggtcccggctctgcagcccagcgaggggagcgggcgccag
tcggcgagctgggcaataAGGAAACGGTTTATTAGGAGGGAGTGGTGGAGCTGGGCCAGGCAGGAAGACGC
TGGAATAAGAAACATTTTTGCTCCAGCCCCATCCCAGTCCCGGGAGGCTGCCGCGCCAGCTGCGCCGAGC
GAGCCCCCTCCCCGGCTCCAGCCCGGTCCGGGGCCGCGCCCGGACCCAGCCCGCGTCCAGCGCTGGCGGT
GCAACTGCGGCCGCGCGGTGGAGGGGAGGTGGCCCCGGTCCGCCGAAGGCTAGCGCCCCGCCACCCGAGA
GCGGGCCAGAG

MCM5 (NM_006739) at chr22:34126128-34150494 - minichromosome maintenance deficient protein 5

tctgtgaaactctgtctctactataaaaaatacaaaaaattaacccgggcatggttgccgcgtgcctgtaatcccagc
taccaggaggctgaggcaggagaactgcttgaacttgggaaacggaggttgagtgagctgaaattatgcc
actgcactccagcctgggtgataaaagcgagaatccgtctcaaaaaaaaaaagtggtaaggacagatttta
tcagtaatgattattgcaacaggggaagagagttcagtatgaactgaactcagctttaatttgtatagaggt
attttaaaggggaggttgaccagcctgggcaatatggtaaaaccccatctctacaaaatgaataaataaattc
gccggggcatggtggtgaggttgaggtgggaggattgcacgagcctgggaggtcaaggctgcagtgagctgt
gattgcaccaccgcactctagcattggcaacagagaccctgtctcaaaaaataaataaaaaaaataaagg
aagattgagggaggaaggggtgggcaagtgatttagtagagtcagggaagtgaataattacaaaagggttaag
tcagtgtaaatgcagtgaggttagctgtgtctgccagttggcaatgatcaaaagttagaatttttgcctccc
acagagcctgggagacagaggtcacatcctcggttgttgcctggaataaacctgtaaacatttaccagcagc
cttgagttttctcaggcaggcaccttagcggggctggtcagagtcatttttagagatgtagcagctgtta
gaaactgttagtggttgttttaagtcttttttcttttttttttttttttttttttttttttttttttttt
tgtcgcccagactggagtgtagtggcacgatctcggtcactgcaacctccgctcccagggttcaagcgat
tctcctgcctcaggcttccaagtagctgggattacaagcgctgccaccacgcccggctaagttttgtatt
tttagtagacacagggtttcccatgttggccaggctggtcttgaactcccgcctcagcctcccaaaatgc
tgggattacaggtgtgagccacggcgctggactgtcttttttttcttttttagagatgagctcgcctgt
cgctcaggctgaagtgcagtggtgcaatcaaaactcactgcagctcctcaaaactcctgggctcaggccatcct
cccaccttggcctcttgagtagctaggacaacaggtgtgtccaccatgccagctaattaaaaaaaaatt
tcaagccgggcgagtggtcctcatgctgtaatcccagcatcttggaaaggctcagggcgggtggatcacctga
ggctcaggagttcaaggctggccaacatggtgaaacccctgtctctactataaaaaatacaaaaaattagccaggc
gtggtggcacacacctgtaattccagctacttgggaagctgaggcaggagaattgcttgaacccaggaggt
ggaagttgcagtgagccgagatcgtgacactgcactccagcctgggcaacagagtgagactctgtctcaaa
acaaaaaaaaattataaaaaaatttctagagaagcgggatcttgcctatgttggccagggtggcctcaactcc
tggactcaagggatcctctcatcttggctcctgaagtgttaggattacaggcatgagccacagtgccat
agatcaaggttgaggcttagaagtgaagggagccagaggaacctggctagagtttggtaaggagaggtct
ttgtcaccattcactacagaaaaataagcagctgtttaaacagaattgagggcggctctgggcatggtggctcacg
cgtgaattccagcactttgggagggcgaagtgatggatcacttgaggccagaagttcgagaccagtggtg
gcgaacatggtgaaacccctgtctccactataaaaaatacaaaaaattagctgagcatggtggcgctgctgtag
tcccagctagttgggaggctgaggcaggagaatcgcttgaaccggggaggcagaagttgcagtgagccgag
attgagccactgcactccatcctggggggacagagtgagactccctctcaacaaaaataaataaacaataaaaa
gcagtggttaggggtgcgagaacccgggtcgggggacgcgggtgagccgcgcggtaatcgccctgtcctgc
caccagctggaggacaggggctcctcagagcctcaggcccagagaacgggccccacgaccgggaagcgaat
actccacagggcacagctctcccaatgcaaaatgggcacctggaccaatcatttctgaacttctagtttt
tctccctatggctatgaaaagggtcatttttttcataggactttaaaagaaggcttaagaaaagcacgca
ggcctggccgggtagctcacgccagtaatcccagtgcttgggacgtcaaggcaggcgggtcgcttgagag
tagagtttcgagacctgggcaagatggtgagactccgtctttatgaaatattttaagaaaaatcacgtacac
ctgtggtccccgctacaagggagggtgaggcggaaggattgcttgagcccaagaggttgaggctacagtaa
gccgtgatccagccactgcactccatccccggcaacacaacgagaccatgcgtcaggaaaaaaaaaaaaaaaa
accaagaaaaataaaaaagaaaccacctaaggcgctcctccgcgcgcccggccctccgccatctttgcgtcc
gccccgtcctgcgccgccacttcttcccagccagaagtttgcgcgcaaattgttccgcacacaaaaatgga
gccccgaagggcagggtcatgacacttgcagccaatcatcttcggcagacagtcgggagcggcggggctg
gagggctcagaagcgtccaatcgctggccgcgaggtccggcgcaaccaatgggagcgcagcggctgcggcg
tccgaacaccgcctcttgtTTTTCCCGCGAAACTCGGCGGCTGAGCGTGGAGGTTCTTGTCTCCCTGGTT
TGTGAAGTGCGGAAAAACCAGAG

[VEGF \(NM_003376\) at chr6:43845931-43862199](#) - vascular endothelial growth factor isoform b

gggtgtggcccagaaggcagggcagagctagcttctgggttccttcagcccctgcaagggttgggactctgt
ccacaggtccagaccagtagcttattatgaactgttgggggtgcatcctgggtgccagcactgaggaagtta
aacgagcttttcttctccaagtccaaagaggtaccggtaccctgaggtggggagggggagcaggaactttg
agccagtggggggtgtgcttcaaattcccaggagtagaccagcatctctggcgggtgccacatTTTTcagc
cctcatagggagtgccaggtgctcaatggtaggggaaaggctgtgggcaggagccaggggtcctgtctgat
gggctgggcttggTTTTcttgacctgcctgcctgctcttgagaaacctggaccagggcatatggtgaatgc
agggggctggcaggtggggagggcctgaacacaggaggaagcaggagtcctgctctctggccttctgagg
agtgggcaggcctgagtgagggtcactgaccaggcagggcctctgggtatgactggagccctggtgggtgg
atgtcatcagcatgggtcctggggagggacaggcaaggagagataaggggagtcctgccccacccagctg
caccagaccgggaccctgggaaccaagcctgcacagccgcttTgtggagctgagcgaggcataccgtgt
gctcagccgtgagcagagccgcccagctatgatgaccagctccgctcaggtagtccccaaagtctccac
gaaccacagtccatgacaagtctgcccacaaacacacaggtacagtaatcctgccctcagcttgccccac
ccccaggtctcttgggtagtctcatttccacaatgtcccttctctgctcccagcagctcctggacaccc
cccaacgcacagtagctgggtccagtttccacagcgtgaggccacaggggccccagttgaggcagcagcaaca
caaacaaaacaaacaagtgtgggtactgcctcctcctcatgctggcgggcatgggcctgactacattg
ccttcaggtgatgcctgttctccccggggtgatgggcagagggcaggaggggtgggtgaattccagtggtg
cagccagtcctccacagcacctcgtggcccgtagcttctgtgtctctcaagctaagagctgcttgaagttgg
tctctggagcctctccttacttattaaaggcagcgctgcaccaagagctaacgttgtcatttacagttttt
catatttCGAATGTAATctttcatgctggctgccaggaagggttgagccaaacaaaatcaagcacaaagc
agcaaatgcagcacagctcattcatttggcagtaggcattctccctgccactctcacgcgtgccacggagct
gatttctctttattctctTTTTTTTTTTTTTTTTTTTTTTTTTtggatggagtctcactctgttgcccagggtgca
gtgcagtgggcgcaatctcggtcactgcaacccacctctgcctcccaggttcaagcaattcttctgtctc
agcctcccagtagctgggactacaggcgtccaccaccacacccggctagtTgttttTgtatttttagtaga
gatgggggtttcaccatattggccaggctgggtCTCAAATCCTGACCTCAGGTGATCCACCCGCCTCAGCCT
cccaaagtactgggattacaggtgagagctaccgcgcctggccacaaagccgattttctatagcagatacc
taaaggccagtgcccactgctagcagcctgcctagtTcagtgatggagttagacgcataaccctttctagtc
ttctgggaggagcacccccatgtccacagctgctgtcacacctcaaagtgaccagggacttcggatgccat
tggaccctagacaagccagggccactctgagccctccctatctatcacaggaagggttagactgaggttcc
taaccctgtgtaagggtaaaaagctgtgaggcccttagagtggggtggaagggggcaggacttcagggaca
gcaggaattggattcccagggttaattgtgaccattgcaggaagggtgaagcagatgcaccttaactcat
ggatgaaaaggatcggtatcatcacagccttctacaacgaagccgggacggggccagggtctgtccctgtc
tattctgtcctctgtcctgtccaggaaccacacttcgggatccctatcccaaccacccagggtgccctct
cctccagggccaacagaggcatccttcagcaggagcgacaacggctagggcagcggcagccgccaccatcc
gagccaacccaaggccccgagatcgtgccccggggcgccggccctgagggggtcacctggatggggcctg
cagtgcgTtcccgcttTgttcccttccctggacggcccgctccccgaaacgcgcgcaataaagtgattcgc
agagctcgtgtccggctccctccttaaggcccgacgccccggccccggcctcgccaaggggcagcgcccc
gccctccgggtagtggcggcgggcactggggagcccagcctcctgggcgggtgcgtcccccttccccctgccg
cggcgggaggcgggaggggggtgtgtggaggaggcgggccccgcgacggcctcgccccccaccccgccgc
cccgcccccgccccacgggcccgtggggagcgctgtctgggtcacatgagccgcctgcccgccagccccg
gcccagcccccccgccgcccccgccgtcccccgccgctgcccccgccacccggccgccccgccccggc
tcttcggcgccctccgtgcgtgcgtgcgtgcgtgcctgcacccagggtcgggagggggcgcgaggag
tcgccccccgcgccccggccccggccgcgccccggccccgcgcatggggctctgggtgtcgccgcccc
ccgcgcccgcgggttaggGCGATGCGGGCGCCCCGGCGGGCGGCCCGGGCACCATGAGCCCTCTGC
TCCGCCGCTGCTGCTCGCCGCACTCCTGCAGCTGGCCCCCGCCAG

[SIN3B \(NM_015260\) at chr19:16801218-16852164](#) - SIN3 homolog B,
transcription regulator

tgtgagcaaacattcaggtgattccagccccagactttgagccaccagctgatgccaaaggttgagttat
tcctcccaagcctgcccaaattgcagattgaagagtaaaatgaatgtctcttttcttttctttttttttt
tttcaagacagggctcttgctcttgctctgttccccagggctggagtgagtgccgaatctcagctcattgc
aacctccaccttctgggttcaagcgatactcatgcctcaacctcccaagtagctgggattacaggtgtgtg
ccaccacacctgggctaattattgtatttttagtagagatgggatttcaccatcttgtccaggtggtcttg
aactcctggcctcatgtgatccaccacaccttgctcccaaagtgtgggattacagccatgagccacttg
ccccgtgaatgttgttgcatttgaagcttctaagctcttgagctgctttttattttcttttacagaaagcc
cagaccttacaatgtttttatttttctctccatttttcttttcttttaagtgttttgtacagatgggac
ttgctatgttgcctgggctgggtctcaaactcctggcctcaatgcatgccccaccttggcctcccaaagt
ctgggattgtcaagggctcatttgttacacagtcataagcaacagaaatttaggaactgttacatgtatacc
ttctctttaaagtatttgttacatgtgaaactttacatttgtgtgattactagattcctgtctatcctgag
agactaaaagctcttaacggccaaatttgcgttcccttttaccattctattcctgacacttagcaaggtgc
ctggtaaatgatgcactcgatgccaaatttactctcaactttcctgcacctcttcaactataaaaagagaaa
gcacttggctcattaattgaacgttcacttattttagatgaatgctgactgagagactgtgtcagggatttga
ttagagacggacacaaaaacaaatatgaaatacaagggactgaggggagacatagaaggggactgggaacac
ttcctgaggggaaagggatatttgggctgcgtttagaaggatgtataggtgttttctgaataacaaagaggc
atgacagtacttctggcaaaggaaatggtgagtgccaatgcttgggaccaggaagcagccaggttggtcag
gcaattgtgtgaagtctgcacagaggcagggcagtttgcctggaaaatcctgcaggaaaaggttcctaagg
accaattctgacagcctgcaatgtaggtgcttagatttcatctcattagaaataggaagaccttggaggtt
tggaaggagtggtggaaaaagtgaggttttttgttttctgttttttttttttaagagatgagatgtctct
ttaaaaaaaaaaaaaaaaaaaaaagcactgctatgcttcccaggtgggggtgtgcagtggaagatcatggct
cactgcagccttgaactcttgggcatgagcaatcctgcctcagcctcccagtagctgggactaaacgtgt
gcaccaccacgcccagctaattttttcattttattttatttttaatttaatttaatttaattttttgag
acagagtttttgcctcttgttggccaggtggagtgcaatggcgtgatcttggctcactgcaacctccgcct
ccgggttcaagcaattctcttgcctcagcctcccagtagctgggattacaggcatgcccacaaagccc
ggctaattttgtatttttagtagagacgggttttctccatgttggtcaggctaattctccaactccagacct
caggtgatctgcccgcctcggcgtcccaaagtgtgggattacaggcgtgagccacggcgcccagccaatt
ttttcattttctttttcttttttcaaggcccggtcaattttttgtatttttagtagagacgggttgcac
cgtgttagccaggatgggtctctatctcctgacctcgtgatccgtccgcctcggcctcccaaagtgtggga
ttacaggcgtgagccaccatccccagcctagagttcttgatagtatcagggtgagaaagtaccagagtta
gagccaggtggggtggcactaaaagtacaaaaaattagcagggcgagtgggcgggcgctgtagtcccagc
tactcaggaggctgaggcaggagaatggtgtgaactcgggaggcgagcttgagtgagcggaatcgcg
cactgcactccagcctgggagacagagcgagactctgtctcaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
agaaagtaccagagttaggaggctcctaaactgggtccagatgggaagtgcggggccaaggatagggaagt
gaagatgggaggagtaggactaacttaaggccatttagcaaaaattcaccacgcaaggccctatattagg
gcgctgggggctcatacctcatcgtcccgtcaactctataaagcaggggccaacaaacttttccataaaa
ggccagatcgtaataacttcagggtctgcagatctgtaggatctttagcaactacctactctgttgaagg
cgaaagcaggcagagaagccaggtaaacgcgtgggctgtctgtgtgctaataaaactttattcagggacc
ctcaaatgtgaatttcacaaactttcacaggctcatagactattcttctttggatttttcccccggtatg
taaacaatgtaaaaaataattctgagcttgcggggccggacaaagttaggcggcggtcttggctcgcctacc
ctgctatataaatcattaattatgataccaatcttaaggagaaggtcttcagaagagtcctcaaagagca
ccgcccctcaacgtcatcaaaccccgctccaaaggcggaggctgcgcatgcgcggcaggacctcgggcgg
ggcgggggcgggcgagCTCCGACTTCGGACATGGCGCACGCTGGCGGTGGCAGCGGTGGCAGCGGTGCC
GGCGGCCCGCGGGCCGGGGGCTGAGCGGCGCCGCTGGGGTGCCTCGGGCTCCGCAGGCCACGAGAAGCT
CCCGGTGCAC