

pUBQ10::ZF108_3xFlag_TET1cd

pUBQ10

BLRP

ZF108

3xFlag

TET1cd

OCS term

AGTCTAGCTCAACAGAGCTTTTAACCCAAATTGGTACAATAGAATACAACCTTAGAT
CATAATTCTCAAAGAAAGAGATTCCCTTAGCTATTCTATCTGCCACTCCATTTCCCTC
TCGGCTTGTATGCACAAGCATAAAATCCTCAAACCTTGCTAAGTAGATACTTTATGTC
TTGGATAATTGGATTGAGACTTGACAAGCATAACTTTCATGTAACCAAAGACACAAG
TTGCTGAGAATCCACCTCAAAAATGATCTTCCCTATAATTGAATCGGGATAATGACAG
CACAGCCCATCTAAGAGCCTCCACTTCTACTTCCAGCACGCTTCTTACTTTTACCAC
AGCTCTTGCACCTAACATAACACCTTCCCTGTATGATCGCGAAGCACCCACCCTA
AGCCACATTTAATCCTTCTGTTGGCCATGCCCCATCAAAGTTGCACTTAACCCAAG
ATTGTGGTGGAGCTTCCCATGTTTCTCGTCTGTCCCAGCGGTGTTGTGGTTGGTGC
TTTCTTACATTCTGAGCCTCTTCCCTTCTAATCCACTCATCTGCATCTTCTTGTGTC
CTACTAATACCTCATTGGTTCCAAATTCCTCCCTTAAGCACAGCTCGTTTCTG
TTCTTCCACAGCCTCCCAAGTATCCAAGGGACTAAAGCCTCCACATTCTTCCAGATC
AGGATATTCTTGTTAAGATGTTGAACTCTATGGAGGTTTGTATGAACTGATGATCT
AGGACCGGATAAGTTCCCTTCTTCATAGCGAACTTATTCAAAGAATGTTTTGTGTAT
CATTCTTGTTACATTGTTATTAATGAAAAAATATTATTGGTCATTGGACTGAACACGA
GTGTTAAATATGGACCAGGCCCAAATAAGATCCATTGATATATGAATTAATAACA
AGAATAAATCGAGTCACCAAACCACTTGCCTTTTTAACGAGACTTGTTACCAACT
TGATACAAAAGTCATTATCCTATGCAAATCAATAATCATACAAAAATATCCAATAACA
CTAAAAAATTAAGAAATGGATAATTTACAATATGTTATACGATAAAGAAGTTACT
TTTCCAAGAAATTCCTGATTTTATAAGCCCACTTGCATTAGATAAATGGCAAAAAA
AAACAAAAGGAAAAGAAATAAAGCACGAAGAATTCTAGAAAATACGAAATACGCTT
CAATGCAGTGGGACCCACGGTTCAATTATTGCCAATTTTCAGCTCCACCGTATATTT
AAAAAATAAACGATAATGCTAAAAAATAAAATCGTAACGATCGTTAAATCTCAAC
GGCTGGATCTTATGACGACCGTTAGAAATTGTGGTTGTCGACGAGTCAGTAATAAA
CGGCGTCAAAGTGGTTGCAGCCGGCACACACGAGTCGTGTTTATCAACTCAAAGC
ACAAATACTTTTCTCAACCTAAAAATAAGGCAATTAGCCAAAAACAACCTTTCGCTG
TAAACAACGCTCAATACACGTGTCATTTTATTATTAGCTATTGCTTACCAGCCTTAG
CTTCTCGTGACCTAGTCGTCCTCGTCTTTTCTTCTTCTTCTTCTATAAAACAATACC
CAAAGAGCTCTTCTTCTTCACAATTCAGATTTCAATTTCTCAAATCTTAAAACTTT
CTCTCAATTCTCTACCGTGATCAAGGTAATTTCTGTGTTCCCTTATTCTCTCAAAA
TCTTCGATTTTGTTCGTTTCGATCCCAATTCGTATATGTTCTTTGGTTAGATTCT
GTTAATCTTAGATCGAAGACGATTTTCTGGGTTTGATCGTTAGATATCATCTTAATTC
TCGATTAGGGTTTCATAGATATCATCCGATTTGTTCAAATAATTTGAGTTTTGTCGAA
TAATACTCTTCGATTTGTGATTTCTATCTAGATCTGGTGTAGTTTCTAGTTTGTGC
GATCGAATTTGTCGATTAATCTGAGTTTTTCTGATTAACAGACGCGTCCATGGTTGG
GTACCAACAAATGGCTGGTGGACTTAACGATATCTTCGAAGCTCAGAAGATTGAAT
GGCATGAGGATACTGGTGGATCTAGCATCCCCGGACTTGAGGTTCTTTTCCAAGG
ACCTCTCGAGCCTTATAAATGCCCTGAGTGTGGAAAATCTTCTCTCAATCTGGAG

ATCTTAGGAGGCACCAAAGGACCCATACCGGTGAAAAACCTTATAAATGCCCTGAG
TGTGAAAAATCATTAGTAGGAGTGATCATCTTACCACCCATCAGAGGACCCATAC
TGGTAAAAACCTTATAAATGCCCTGAGTGTGGAAAATCATTCTCACAATCTTCATC
TCTTGTTAGGCATCAGAGGACTCATACCGGAGAAAAACCTTATAAATGCCCTGAGT
GTGGAAAATCATTCTCAACATCTGGAAACCTTGTTAGGCACCAAAGGACCCATACT
GGTAAAAACCTTATAAATGCCCTGAGTGTGGAAAATCATTCTCTCAGAGAGCAAA
CCTTAGGGCTCATCAAAGGACACACACTGGAGAAAAACCTTATAAATGCCCTGAGT
GTGGAAAATCTTTCTCTAGGAGTGATAAGCTCACCGAGCATCAAAGGACTCACACC
GGA

CTCGAGGACTACAAAGACGATGACGACAAAGACTACAAAGACGATGACGACA
AAGACTACAAAGACGATGACGACAAAAAGCTTGATATCGCCATGGGGGGCGCGCC
AAGCTATCAAACAAGTTTGTACAAAAAGCAGGCTCCGCGGCCGCCCCCTTCACCA
TGGGATCCCTGCCACCTGCAGCTGTCTTGATCGAGTTATACAAAAAGACAAAGGC
CCATATTATACACACCTTGGGGCAGGACCAAGTGTTGCTGCTGTCAGGGAAATCAT
GGAGAATAGGTATGGTCAAAAAGGAAACGCAATAAGGATAGAAATAGTAGTGACA
CCGGTAAAGAAGGGAAAAGCTCTCATGGGTGTCCAATTGCTAAGTGGGTTTTAAGA
AGAAGCAGTGATGAAGAAAAAGTTCTTTGTTTGGTCCGGCAGCGTACAGGCCACC
ACTGTCCAAGTGTGATGGTGGTGTCTCATCATGGTGTGGGATGGCATCCCTCTT
CCAATGGCCGACCGGCTATACACAGAGCTCACAGAGAATCTAAAGTCATACAATGG
GCACCCTACCGACAGAAGATGCACCCTCAATGAAAATCGTACCTGTACATGTCAAG
GAATTGATCCAGAGACTTGTGGAGCTTCATTCTCTTTTGGCTGTTTCATGGAGTATGT
ACTTTAATGGCTGTAAGTTTGGTAGAAGCCCAAGCCCCAGAAGATTTAGAATTGAT
CCAAGCTCTCCCTTACATGAAAAAACCTTGAAGATAACTTACAGAGTTTGGCTACA
CGATTAGCTCCAATTTATAAGCAGTATGCTCCAGTAGCTTACCAAATCAGGTGGA
ATATGAAAATGTTGCCCGAGAATGTCGGCTTGGCAGCAAGGAAGTTCGACCCTTC
TCTGGGGTCACTGCTTGCTGGACTTCTGTGCTCATCCCCACAGGGACATTCACAA
CATGAATAATGGAAGCACTGTGGTTTTGTACCTTAACTCGAGAAGATAACCGCTCTTT
GGGTGTTATTCTCAAGATGAGCAGCTCCATGTGCTACCTCTTTATAAGCTTTTCAGA
CACAGATGAGTTTGGCTCCAAGGAAGGAATGGAAGCCAAGATCAAATCTGGGGCC
ATCGAGGTCCTGGCACCCCGCCGCAAAAAAAGAACGTGTTTCACTCAGCCTGTTT
CCCGTTCTGGAAAGAAGAGGGCTGCGATGATGACAGAGGTTCTTGCACATAAGAT
AAGGGCAGTGGAAAAGAAACCTATTCCCCGAATCAAGCGGAAGAATAACTCAACAA
CAACAAACAACAGTAAGCCTTCGTCACTGCCAACCTTAGGGAGTAACACTGAGACC
GTGCAACCTGAAGTAAAAAGTGAACCGAACCCCATTTTATCTTAAAAAGTTCAGAC
AACACTAAAACCTTATTGCTGATGCCATCCGCTCCTCACCCAGTGAAAGAGGCATC
TCCAGGCTTCTCCTGGTCCCCGAAGACTGCTTCAGCCACACCAGCTCCACTGAAG
AATGACGCAACAGCCTCATGCGGGTTTTTCAGAAAGAAGCAGCACTCCCCACTGTA
CGATGCCTTCGGGAAGACTCAGTGGTGCCAATGCTGCAGCTGCTGATGGCCCTGG
CATTTACAGCTTGGCGAAGTGGCTCCTCTCCCCACCCTGTCTGCTCCTGTGATGG
AGCCCCTCATTAAATTCTGAGCCTTCCACTGGTGTGACTGAGCCGCTAACGCCTCAT
CAGCCAAACCACCAGCCCTCCTTCCCTCACCTCTCCTCAAGACCTTGCCTCTTCTCC
AATGGAAGAAGATGAGCAGCATTCTGAAGCAGATGAGCCTCCATCAGACGAACCC
CTATCTGATGACCCCTGTACCTGCTGAGGAGAAATTGCCCCACATTGATGAGTA
TTGGTCAGACAGTGAGCACATCTTTTTGGATGCAAATATTGGTGGGGTGGCCATCG
CACCTGCTCACGGCTCGGTTTTGATTGAGTGTGCCCGGCGAGAGCTGCACGCTAC
CACTCCTGTTGAGCACCCCAACCGTAATCATCCAACCCGCCTCTCCCTTGTCTTTT
ACCAGCACAAAAACCTAAATAAGCCCCAACATGTTTTGAACTAAACAAGATTAAGT

TTGAGGCTAAAGAAGCTAAGAATAAGAAAATGAAGGCCTCAGAGCAAAAAGACCAG
GCAGCTAATGAAGGTCCAGAACAGTCCTCTGAAGTAAATGAATTGAACCAAATTCC
TTCTCATAAAGCATTAAACATTAACCCATGACAATGTTGTCACCGTGTCCCCTTATGC
TCTCACACACGTTGCGGGGCCCTATAACCATTGGGTCTGA AAGGGTGGGCGCGCC
GACCCAGCTTTCTTGTACAAAGTGGTTTCGATAATTCCTTAATTAAGTACTAGTTCTAGAG
CGGCCGCCACCGCGGTGGAGCTCCTAGGTGAGTCTAGAGAGTTAATTAAGACCCG
GGACTAGTCCCTAGAGTCCCTGCTTTAATGAGATATGCGAGACGCCTATGATCGCAT
GATATTTGCTTTCAATTCTGTTGTGCACGTTGTAAAAACCTGAGCATGTGTAGCTC
AGATCCTTACCGCCGGTTTCGGTTCATTCTAATGAATATATCACCCGTTACTATCGT
ATTTTTATGAATAATATTCTCCGTTCAATTTACTGATTGTACCCTACTACTTATATGTA
CAATATTAATAAATGAAAACAATATATTGTGCTGAATAGGTTTATAGCGACATCTATGAT
AGAGCGCCACAATAACAAACAATTGCGTTTTATTATTACAAATCCAATTTTAAAAAAA
GCGGCAGAACCGGTCAAACCTAAAAGACTGATTACATAAATCTTATTCAAATTTCAA
AAGTGCCCCAGGGGCTAGTATCTACGACACACCGAGCGGCGAACTAATAACGCTC
ACTGAAGGGAACCTCCGGTTCGCCGCGCGCATGGGTGAGATTCCTTGAAGTT
GAGTATTGGCCGTCCGCTCTACCGAAAGTTACGGGCACCATTCAACCCGGTCCAG
CACGGCGGCCGGGTAACCGACTTGCTGCCCGAGAATTATGCAGCATTTTTTTGG
TGTATGTGGGCCCAAATGAAGTGCAGGTCAAACCTTGACAGTGACGACAAATCGT
TGGCGGGTCCAGGGCGAATTTTGCACGAGCT

pUBQ10::ZF108_3xFlag_YPet

pUBQ10

BLRP

ZF108

3xFlag

YPet

OCS term

AGTCTAGCTCAACAGAGCTTTTAACCCAAATTGGTACAATAGAATACAACCTTAGAT
CATAATTCTCAAAGAAAGAGATTCCCTTAGCTATTCTATCTGCCACTCCATTTCCCTC
TCGGCTTGTATGCACAAGCATAAAATCCTCAAACCTTGCTAAGTAGATACTTTATGTC
TTGGATAATTGGATTGAGACTTGACAAGCATAACTTTCATGTAACCAAAGACACAAG
TTGCTGAGAATCCACCTCAAAAATGATCTTCTATAATTGAATCGGGATAATGACAG
CACAGCCCATCTAAGAGCCTCCACTTCTACTTCCAGCACGCTTCTTACTTTTACCAC
AGCTCTTGCACCTAACATAACACCTTCCCTGTATGATCGCGAAGCACCCACCCTA
AGCCACATTTAATCCTTCTGTTGGCCATGCCCCATCAAAGTTGCACTTAACCCAAG
ATTGTGGTGGAGCTTCCCATGTTTCTCGTCTGTCCCGACGGTGTGTTGGTTGGTGC
TTTCCCTTACATTCTGAGCCTCTTCCCTTCTAATCCACTCATCTGCATCTTCTTGTGTC
CTTACTAATACCTCATTGGTTCCAAATTCCTCCCTTAAAGCACCGCTCGTTTCTG
TTCTTCCACAGCCTCCCAAGTATCCAAGGGACTAAAGCCTCCACATTCTTACAGATC
AGGATATTCTTGTTTAAGATGTTGAACTCTATGGAGGTTTGTATGAACTGATGATCT
AGGACCGGATAAGTTCCCTTCTTCATAGCGAACTTATTCAAAGAATGTTTTGTGAT
CATTCTTGTTACATTGTTATTAATGAAAAAATATTATTGGTCATTGGACTGAACACGA
GTGTTAAATATGGACCAGGCCCAAATAAGATCCATTGATATATGAATTAATAACA
AGAATAAATCGAGTCACCAAACCACTTGCCTTTTTAAACGAGACTTGTTACCAACT
TGATACAAAAGTCATTATCCTATGCAAATCAATAATCATACAAAATATCCAATAACA

CTAAAAAATTAAGAAATGGATAATTTACAATATGTTATACGATAAAGAAGTACT
TTTCCAAGAAATCACTGATTTTATAAGCCACTTGCATTAGATAAATGGCAAAAA
AAACAAAAGGAAAAGAAATAAAGCACGAAGAATTCTAGAAAATACGAAATACGCTT
CAATGCAGTGGGACCCACGGTTCAATTATTGCCAATTTTCAGCTCCACCGTATATTT
AAAAATAAAACGATAATGCTAAAAAATAAAATCGTAACGATCGTTAAATCTCAAC
GGCTGGATCTTATGACGACCGTTAGAAATTGTGGTTGTCGACGAGTCAGTAATAAA
CGGCGTCAAAGTGGTTGCAGCCGGCACACACGAGTCGTGTTTATCAACTCAAAGC
ACAAATACTTTTCTCAACCTAAAAATAAGGCAATTAGCCAAAAACAACCTTTCGCGT
TAAACAACGCTCAATACACGTGTCATTTTATTATTAGCTATTGCTTACCAGCCTTAG
CTTTCTCGTGACCTAGTCGTCCTCGTCTTTTCTTCTTCTTCTTATAAAACAATACC
CAAAGAGCTCTTCTTCTTCACAATTCAGATTTCAATTTCTCAAATCTTAAAACTTT
CTCTCAATTCTCTTACCCTGATCAAGGTAATTTCTGTGTTCTTATTCTCTCAAAA
TCTTCGATTTTGTTCGTTTCGATCCCAATTTCTGATATGTTCTTTGGTTTAGATTCT
GTTAATCTTAGATCGAAGACGATTTTCTGGGTTTGATCGTTAGATATCATCTTAATTC
TCGATTAGGGTTTCATAGATATCATCCGATTTGTTCAAATAATTTGAGTTTTGTGCA
TAATTACTCTTCGATTTGTGATTTCTATCTAGATCTGGTGTAGTTTCTAGTTTGTGC
GATCGAATTTGTGATTAATCTGAGTTTTTCTGATTAACAGACGCGTCCATGGTTGG
GTACCAACAAATGGCTGGTGGACTTAACGATATCTTCGAAGCTCAGAAGATTGAAT
GGCATGAGGATACTGGTGATCTAGCATCCCCGGACTTGAGGTTCTTTTCCAAGG
ACCTCTCGAGCCTTATAAATGCCCTGAGTGTGGAAAATCTTTCTCTCAATCTGGAG
ATCTTAGGAGGCACCAAAGGACCCATACCGGTGAAAAACCTTATAAATGCCCTGAG
TGTGAAAATCATTAGTAGGAGTGATCATCTTACCACCCATCAGAGGACCCATAC
TGGTAAAAACCTTATAAATGCCCTGAGTGTGGAAAATCATTCTCACAATCTTCATC
TCTTGTTAGGCATCAGAGGACTCATACCGGAGAAAAACCTTATAAATGCCCTGAGT
GTGGAAAATCATTCTCAACATCTGGAAACCTTGTTAGGCACCAAAGGACCCATACT
GGTAAAAACCTTATAAATGCCCTGAGTGTGGAAAATCATTCTCTCAGAGAGCAAA
CCTTAGGGCTCATCAAAGGACACACACTGGAGAAAAACCTTATAAATGCCCTGAGT
GTGGAAAATCTTTCTCTAGGAGTGATAAGCTCACCGAGCATCAAAGGACTCACACC
GGACTCGAGGACTACAAAGACGATGACGACAAAGACTACAAAGACGATGACGACA
AAGACTACAAAGACGATGACGACAAAAAGCTTGATATCGCCATGGGGGGCGCGCC
AAGCTATCAAACAAGTTTGTACAAAAAGCAGGCTCCGCGGCCGCCCCCTTACC
CTAGACCCTTTGCCTGCTGCTGCTGCCGCTGTGAGCAAAGGCGAAGAGCTGTTCA
CCGGCGTGGTGCCCATCCTGGTGGAGCTGGACGGCGACGTGAACGGCCACAAGT
TCAGCGTGAGCGGCGAGGGCGAGGGCGACGCCACCTACGGCAAGCTGACCCTGA
AGCTGCTGTGCACCACCGGCAAGCTGCCCGTGCCCTGGCCCACCCTGGTGACCA
CCCTGGGCTACGGCGTGACGTGCTTCGCCCGGTACCCCGACCACATGAAGCAGC
ACGACTTCTTCAAGAGCGCCATGCCCGAGGGCTACGTGCAGGAGCGGACCATCTT
CTTCAAGGACGACGGCAACTACAAGACCCGGGCCGAGGTGAAGTTCGAGGGCGA
CACCTGGTGAACCGGATCGAGCTGAAGGGCATCGACTTCAAGGAGGACGGCAA
CATCCTGGGCCACAAGCTGGAGTACAACACTACAACAGCCACAACGTGTACATCACC
GCCGACAAGCAGAAGAACGGCATCAAGGCCAACTTCAAGATCCGGCACAACATCG
AGGACGGCGGCGTGACGCTGGCCGACCACTACCAGCAGAACACCCCATCGGCG
ACGGCCCCGTGCTGCTGCCCGACAACCACTACCTGAGCTACCAGAGCGCCCTGTT
CAAGGACCCCAACGAGAAGCGGGACCATGGTGTGCTGCTGGAGTTCCTGACCGC
CGCCGGCATCACCGAGGGCATGAACGAGCTCTATAATTAGAAGGGTGGGGCGCGC
CGACCCAGCTTTCTTGTACAAAGTGGTTTCGATAATTCCTTAATTAAGTCTAGA

GCGGCCGCCACCGCGGTGGAGCTCCTAGGTGAGTCTAGAGAGTTAATTAAGACCC
GGGACTAGTCCCTAGAGTCCTGCTTTAATGAGATATGCGAGACGCCTATGATCGCA
TGATATTTGCTTTCAATTCTGTTGTGCACGTTGTAACCACTGAGCATGTGTAGCT
CAGATCCTTACCGCCGGTTTCGGTTCATTCTAATGAATATATCACCCGTTACTATCG
TATTTTTATGAATAATATTCTCCGTTCAATTTACTGATTGTACCCTACTACTTATATGT
ACAATATTAATAATGAAAACAATATATTGTGCTGAATAGGTTTATAGCGACATCTATGA
TAGAGCGCCACAATAACAAACAATTGCGTTTTATTATTACAAATCCAATTTTAAAAAA
AGCGGCAGAACCGGTCAAACCTAAAAGACTGATTACATAAATCTTATTCAAATTTCA
AAAGTGCCCCAGGGGCTAGTATCTACGACACACCGAGCGGCGAATAAAGCCT
CACTGAAGGGAACCTCCGGTTCCTCCGCGCGCATGGGTGAGATTCCTTGAAGT
TGAGTATTGGCCGTCCGCTCTACCGAAAGTTACGGGCACCATTCAACCCGGTCCA
GCACGGCGGCGGGTAACCGACTTGCTGCCCGAGAATTATGCAGCATTTTTTTTG
GTGTATGTGGGCCCAAATGAAGTGCAGGTCAAACCTTGACAGTGACGACAAATC
GTTGGGCGGGTCCAGGGCGAATTTTGCACGAGCT

pUBQ10::ZF1CACTA1_3xFlag_TET1cd

pUBQ10

ZF1CACTA1

3xFlag

TET1cd

OCS term

AGTCTAGCTCAACAGAGCTTTTAACCCAAATTGGTACAATAGAATACAACCTTTAGAT
CATAATTCTCAAAGAAAGAGATTCCCTTAGCTATTCTATCTGCCACTCCATTTCCCTC
TCGGCTTGATGCACAAGCATAAAATCCTCAAACCTTGCTAAGTAGATACTTTATGTC
TTGGATAATTGGATTGAGACTTGACAAGCATAACTTTCATGTAACCAAAGACACAAG
TTGCTGAGAATCCACCTCAAAAATGATCTTCTATAATTGAATCGGGATAATGACAG
CACAGCCCATCTAAGAGCCTCCACTTCTACTTCCAGCACGCTTCTTACTTTTACCAC
AGCTCTTGCACCTAACATAACACCTTCCCTGTATGATCGCGAAGCACCCACCCTA
AGCCACATTTAATCCTTCTGTTGGCCATGCCCATCAAAGTTGCACTTAACCCAAG
ATTGTGGTGGAGCTTCCCATGTTTCTCGTCTGTCCCGACGGTGTGTTGGTTGGTGC
TTTCTTACATTCTGAGCCTCTTCCCTTCTAATCCACTCATCTGCATCTTCTTGTGTC
CTTACTAATACCTCATTGGTTCCAAATTCCTCCCTTTAAGCACAGCTCGTTTCTG
TTCTTCCACAGCCTCCCAAGTATCCAAGGGACTAAAGCCTCCACATTCTTCAAGATC
AGGATATTCTTGTTAAGATGTTGAACTCTATGGAGGTTTGTATGAACTGATGATCT
AGGACCGGATAAGTTCCTTCTTCATAGCGAACTTATTCAAAGAATGTTTTGTGTAT
CATTCTTGTTACATTGTTATTAATGAAAAAATATTATTGGTCATTGGACTGAACACGA
GTGTTAAATATGGACCAGGCCCAAATAAGATCCATTGATATATGAATTAATAACA
AGAATAAATCGAGTCACCAAACCACTTGCTTTTTAACGAGACTTGTTCACTCACT
TGATACAAAAGTCATTATCCTATGCAAATCAATAATCATACAAAAATATCCAATAACA
CTAAAAAATTAAGAAATGGATAATTTACAATATGTTATACGATAAAGAAGTTACT
TTTCCAAGAAATTCCTGATTTTATAAGCCACTTGCAATTAGATAAATGGCAAAAAA
AAACAAAAAGGAAAAGAAATAAAGCACGAAGAATTCTAGAAAATACGAAATACGCTT
CAATGCAGTGGGACCCACGGTCAATTATTGCCAATTTTCACTCCACCGTATATTT
AAAAAATAAACGATAATGCTAAAAAATAAATCGTAACGATCGTTAAATCTCAAC
GGCTGGATCTTATGACGACCGTTAGAAATTGTGGTTGTGCGACGAGTCAGTAATAAA

CGGCGTCAAAGTGGTTGCAGCCGGCACACACGAGTCGTGTTTATCAACTCAAAGC
ACAAATACTTTTCTCAACCTAAAAATAAGGCAATTAGCCAAAAACAACCTTGCGTG
TAAACAACGCTCAATACACGTGTCATTTTATTATTAGCTATTGCTTCACCGCCTTAG
CTTTCTCGTGACCTAGTCGTCCTCGTCTTTTCTTCTTCTTCTTCTATAAAAAAATACC
CAAAGAGCTCTTCTTCTTCACAATTCAGATTTCAATTTCTCAAAATCTTAAAACTTT
CTCTCAATTCTCTTACCGTGATCAAGGTAATTTCTGTGTTCTTATTCTCTCAAAA
TCTTCGATTTTGTTCGTTTCGATCCCAATTTTCGTATATGTTCTTTGGTTTAGATTCT
GTTAATCTTAGATCGAAGACGATTTTCTGGGTTTGATCGTTAGATATCATCTTAATTC
TCGATTAGGGTTTCATAGATATCATCCGATTTGTTCAAATAATTTGAGTTTTGTGCGAA
TAATTACTCTTCGATTTGTGATTTCTATCTAGATCTGGTGTAGTTTCTAGTTTGTGC
GATCGAATTTGTGCGATTAATCTGAGTTTTTCTGATTAACAGATGGTT GAG AAA CCT
TAC AAG TGC CCG GAG TGC GGA AAG TCT TTT TCA CAA AAC TCA ACC TTG
ACG GAG CAT CAG CGA ACA CAT ACC GGG GAA AAG CCG TAT AAG TGT CCG
GAA TGC GGG AAA TCT TTT TCT AGG TCT GAT AAC TTG GTG AGA CAC CAG
CGT ACA CAC ACA GGT GAA AAG CCT TAC AAG TGC CCA GAA TGC GGA AAG
AGC TTC AGC ACC ACC GGC AAT CTG ACC GTA CAT CAG CGA ACT CAT ACA
GGT GAG AAA CCC TAT AAG TGT CCT GAG TGC GGA AAA TCT TTC AGC CAA
TCA TCA AAT TTA GTG AGA CAT CAG AGG ACC CAC ACA GGG GAG AAG CCG
TAT AAA TGT CCC GAG TGT GGG AAA AGT TTC TCT CGA TCC GAT AAC CTG
GTA CGA CAT CAG CGA ACC CAT ACT GGT GAG AAG CCC TAT AAA TGC CCT
GAA TGC GGC AAA TCC TTT TCC ACG TCC GGG AGC CTA GTT AGG CAT CAA
CGA ACC CAT ACC GGT

AACCGCGCCAAGCTTGGTACCGACTACAAAGACGATGACGACAAAGACTACAAAG
ACGATGACGACAAAGACTACAAAGACGATGACGACAAAGGATCCCTTGAGGTTCTT
TTCGGCGCGCCAAGCTATCAACAAGTTTGACAAAAAAGCAGGCTCCGCGGCCG
CCCCCTTACCATGGGATCCCTGCCACCTGCAGCTGTCTTGATCGAGTTATACAA
AAAGACAAAGGCCCATATTATACACACCTTGGGGCAGGACCAAGTGTTGCTGCTGT
CAGGGAAATCATGGAGAATAGGTATGGTCAAAAAGGAAACGCAATAAGGATAGAAA
TAGTAGTGTACACCGGTAAGAAGGGAAAAGCTCTCATGGGTGTCCAATTGCTAAG
TGGTTTTAAGAAGAAGCAGTGATGAAGAAAAGTTCTTTGTTTGGTCCGGCAGCG
TACAGGCCACCACTGTCCAAGTGTGATGGTGGTGTCTCATCATGGTGTGGGAT
GGCATCCCTCTTCCAATGGCCGACCGGCTATACACAGAGCTCACAGAGAATCTAA
AGTCATACAATGGGCACCCTACCGACAGAAGATGCACCCTCAATGAAAATCGTACC
TGTACATGTCAAGGAATTGATCCAGAGACTTGTGGAGCTTCATTCTCTTTTGGCTGT
TCATGGAGTATGTACTTTAATGGCTGTAAGTTTGGTAGAAGCCCAAGCCCCAGAAG
ATTTAGAATTGATCCAAGCTCTCCCTTACATGAAAAAACCTTGAAGATAACTTACA
GAGTTTGGCTACACGATTAGCTCCAATTTATAAGCAGTATGCTCCAGTAGCTTACC
AAAATCAGGTGGAATATGAAAATGTTGCCCGAGAATGTCGGCTTGGCAGCAAGGA
AGGTCGACCCTTCTCTGGGGTCACTGCTTGCCTGGACTTCTGTGCTCATCCCCACA
GGGACATTCACAACATGAATAATGGAAGCACTGTGGTTTGTACCTTAACTCGAGAA
GATAACCGCTCTTTGGGTGTTATTCCTCAAGATGAGCAGCTCCATGTGCTACCTCT
TTATAAGCTTTTACAGACACAGATGAGTTTGGCTCCAAGGAAGGAATGGAAGCCAAGA
TCAAATCTGGGGCCATCGAGGTCCTGGCACCCCGCCGCAAAAAAAGAACGTGTTT
CACTCAGCCTGTTCCCCGTTCTGGAAAGAAGAGGGCTGCGATGATGACAGAGGTT
CTTGACATAAGATAAGGGCAGTGGAAAAGAAACCTATTCCCCGAATCAAGCGGAA
GAATAACTCAACAACAACAACAACAGTAAGCCTTCGTCACTGCCAACCTTAGGGA

GTAACACTGAGACCGTGCAACCTGAAGTAAAAAGTGAAACCGAACCCCATTTTATC
TTAAAAAGTTCAGACAACACTAAAACCTATTTCGCTGATGCCATCCGCTCCTCACCCA
GTGAAAGAGGCATCTCCAGGCTTCTCCTGGTCCCCGAAGACTGCTTCAGCCACAC
CAGCTCCACTGAAGAATGACGCAACAGCCTCATGCGGGTTTTTCAGAAAGAAGCAG
CACTCCCCACTGTACGATGCCTTCGGGAAGACTCAGTGGTGCCAATGCTGCAGCT
GCTGATGGCCCTGGCATTTCACAGCTTGGCGAAGTGGCTCCTCTCCCCACCCTGT
CTGCTCCTGTGATGGAGCCCCTCATTAAATTCTGAGCCTTCCACTGGTGTGACTGAG
CCGCTAACGCCTCATCAGCCAAACCACCAGCCCTCCTTCCCTCACCTCTCCTCAAGA
CCTTGCCTCTTCTCCAATGGAAGAAGATGAGCAGCATTCTGAAGCAGATGAGCCTC
CATCAGACGAACCCCTATCTGATGACCCCTGTCACCTGCTGAGGAGAAATTGCC
CCACATTGATGAGTATTGGTCAGACAGTGAGCACATCTTTTTGGATGCAAATATTG
GTGGGGTGGCCATCGCACCTGCTCACGGCTCGGTTTTGATTGAGTGTGCCCGGC
GAGAGCTGCACGCTACCACTCCTGTTGAGCACCCCAACCGTAATCATCCAACCCG
CCTCTCCCTTGTCTTTTACCAGCACAAAAACCTAAATAAGCCCCAACATGGTTTTGA
ACTAAACAAGATTAAGTTTGAGGCTAAAGAAGCTAAGAATAAGAAAATGAAGGCCT
CAGAGCAAAAAGACCAGGCAGCTAATGAAGGTCCAGAACAGTCCTCTGAAGTAAA
TGAATTGAACCAAATTCCTTCTCATAAAGCATTAAACATTAACCCATGACAATGTTGT
CACCGTGTCCCCTTATGCTCTCACACACGTTGCGGGGCCCTATAACCATTGGGTCT
GAAAGGGTGGGCGCGCCGACCCAGCTTTCTTGTACAAAGTGGTTCGATAATTCTTA
ATTAAGTCTAGAGCGGCCGCCACCGCGGTGGAGCTCCTAGGTGAGTCTAGA
GAGTTAATTAAGACCCGGGACTAGTCCCTAGAGTCCTGCTTTAATGAGATATGCGA
GACGCCTATGATCGCATGATATTTGCTTTCAATTCTGTTGTGCACGTTGTA AAAAAC
CTGAGCATGTGTAGCTCAGATCCTTACCGCCGGTTTCGGTTCATTCTAATGAATATA
TCACCCGTTACTATCGTATTTTTATGAATAATATTCTCCGTTCAATTTACTGATTGTA
CCCTACTACTTATATGTACAATATTA AAAATGAAAACAATATATTGTGCTGAATAGGTT
TATAGCGACATCTATGATAGAGCGCCACAATAACAAACAATTGCGTTTTATTATTAC
AAATCCAATTTTAAAAAAGCGGCAGAACCGGTCAAACCTAAAAGACTGATTACATA
AATCTTATTCAAATTTCAAAGTGCCCCAGGGGCTAGTATCTACGACACACCGAGC
GGCGAACTAATAACGCTCACTGAAGGGA ACTCCGGTTC CCGCGCGGCATG
GGTGAGATTCCTTGAAGTTGAGTATTGGCCGTCCGCTCTACCGAAAGTTACGGGC
ACCATTCAACCCGGTCCAGCACGGCGGGGTAACCGACTTGCTGCCCCGAGA
ATTATGCAGCATTTTTTTGGTGTATGTGGGCCCAAATGAAGTGCAGGTCAAACCT
TGACAGTGACGACAAATCGTTGGGCGGGTCCAGGGCGAATTTTGCACGAGCT

pUBQ10::ZF2CACTA1_3xFlag_TET1cd

pUBQ10
ZF2CACTA1
3xFlag
TET1cd
OCS term

AGTCTAGCTCAACAGAGCTTTTAACCCAAATTGGTACAATAGAATACA ACTTTAGAT
CATAATTCTCAAAGAAAGAGATTCTTAGCTATTCTATCTGCCACTCCATTTCCCTC
TCGGCTTGATGCACAAGCATAAAAATCCTCAAACCTGCTAAGTAGATACTTTATGTC

TTGGATAATTGGATTGAGACTTGACAAGCATAACTTTTCATGTAACCAAAGACACAAG
TTGCTGAGAATCCACCTCAAAAATGATCTTCTATAATTGAATCGGGATAATGACAG
CACAGCCCATCTAAGAGCCTCCACTTCTACTTCCAGCACGCTTCTTACTTTTACCAC
AGCTCTTGACCTAACCATACACCTTCCCTGTATGATCGCGAAGCACCCACCCTA
AGCCACATTTAATCCTTCTGTTGGCCATGCCCATCAAAGTTGCACTTAACCCAAG
ATTGTGGTGGAGCTTCCCATGTTTCTCGTCTGTCCCGACGGTGTGTGGTTGGTGC
TTTCTTACATTCTGAGCCTCTTCTTCTAATCCACTCATCTGCATCTTCTTGTGTC
CTTACTAATACCTCATTGGTTCCAAATTCCTCCCTTAAAGCACCAGCTCGTTTCTG
TTCTTCCACAGCCTCCCAAGTATCCAAGGGACTAAAGCCTCCACATTCTTCAGATC
AGGATATTCTTGTTAAGATGTTGAACTCTATGGAGGTTTGTATGAACTGATGATCT
AGGACCGGATAAGTTCCCTTCTCATAGCGAACTTATTCAAAGAATGTTTTGTGTAT
CATTCTTGTTACATTGTTATTAATGAAAAAATATTATTGGTCATTGGACTGAACACGA
GTGTTAAATATGGACCAGGCCCAAATAAGATCCATTGATATATGAATTAATAACA
AGAATAAATCGAGTCACCAAACCACTTGCCTTTTTTAACGAGACTTGTTACCAACT
TGATACAAAAGTCATTATCCTATGCAAATCAATAATCATACAAAAATATCCAATAACA
CTAAAAAATTAAGAAATGGATAATTCACAATATGTTATACGATAAAGAAGTTACT
TTTCCAAGAAATTCCTGATTTTATAAGCCCCTTGCATTAGATAAATGGCAAAAAA
AAACAAAAGGAAAAGAAATAAAGCACGAAGAATTCTAGAAAATACGAAATACGCTT
CAATGCAGTGGGACCCACGGTTCAATTATTGCCAATTTTCAGCTCCACCGTATATT
AAAAAATAAACGATAATGCTAAAAAATAAATCGTAACGATCGTTAAATCTCAAC
GGCTGGATCTTATGACGACCGTTAGAAATTGTGGTTGTCGACGAGTCAGTAATAAA
CGGCGTCAAAGTGGTTGCAGCCGGCACACACGAGTCGTGTTTATCAACTCAAAGC
ACAAATACTTTTCTCAACCTAAAAATAAGGCAATTAGCCAAAAACAACCTTTGCGTG
TAAACAACGCTCAATACACGTGTCATTTTATTATTAGCTATTGCTTCACCGCCTTAG
CTTCTCGTGACCTAGTCGTCCTCGTCTTTTCTTCTTCTTCTATAAAAACAATACC
CAAAGAGCTCTTCTTCTTCACAATTCAGATTTCAATTTCTCAAATCTTAAAAACTTT
CTCTCAATTCTCTACCGTGATCAAGGTAATTTCTGTGTTCTTATTCTCTCAAAA
TCTTCGATTTTGTTCGTTTCGATCCCAATTTCTGATATGTTCTTTGGTTTAGATTCT
GTTAATCTTAGATCGAAGACGATTTTCTGGGTTTATCGTTAGATATCATCTTAATTC
TCGATTAGGGTTTCATAGATATCATCCGATTTGTTCAAATAATTTGAGTTTTGTGAA
TAATTACTCTTCGATTTGTGATTTCTATCTAGATCTGGTGTAGTTTCTAGTTTGTGC
GATCGAATTTGTGATTAATCTGAGTTTTTCTGATTAACGATGGTT GAG AAG CCC
TAT AAG TGC CCC GAG TGT GGG AAG TCT TTC AGC AGG GAA GAT AAC CTC
CAC ACT CAT CAA AGA ACG CAT ACG GGA GAA AAG CCT TAC AAA TGT CCG
GAA TGT GGG AAA TCA TTC AGC CAA TCA AGC AAT CTC GTG AGA CAT CAA
CGT ACA CAT ACA GGG GAA AAA CCA TAT AAG TGC CCC GAA TGC GGT AAG
TCA TTT TCA CAC CGT ACT ACT CTG ACA AAC CAT CAA CGT ACC CAT ACT
GGG GAG AAG CCT TAT AAA TGT CCT GAG TGT GGG AAG AGC TTC TCT CAG
AGG GCG CAT TTG GAG CGT CAC CAG AGG ACA CAT ACC GGC GAA AAA CCG
TAC AAA TGT CCT GAA TGT GGA AAG TCA TTC TCA CGT AGT GAC AAT CTC
GTC AGG CAC CAG CGT ACT CAT ACT GGA GAG AAA CCC TAC AAG TGT CCT
GAA TGT GGT AAG TCC TTC AGT CAA TCC TCC AGC CTA GTG AGA CAT CAA
AGG ACG CAT ACC GGG

AACCGCGCCAAGCTTGGTACCGACTACAAAGACGATGACGACAAAGACTACAAAG
ACGATGACGACAAAGACTACAAAGACGATGACGACAAAGGATCCCTTGAGGTTCTT
TTCGGCGCGCCAAGCTATCAACAAGTTTGTACAAAAAAGCAGGCTCCGCGGCCG

CCCCCTTCACCATGGGATCCCTGCCACCTGCAGCTGTCTTGATCGAGTTATACAA
AAAGACAAAGGCCCATATTATACACACCTTGGGGCAGGACCAAGTGTGCTGCTGT
CAGGGAAATCATGGAGAATAGGTATGGTCAAAAAGGAAACGCAATAAGGATAGAAA
TAGTAGTGTACACCGGTAAAGAAGGGAAAAGCTCTCATGGGTGTCCAATTGCTAAG
TGGGTTTTAAGAAGAAGCAGTGATGAAGAAAAAGTTCTTTGTTTGGTCCGGCAGCG
TACAGGCCACCACTGTCCAAGTGTGTGATGGTGGTGTGCTCATCATGGTGTGGGAT
GGCATCCCTCTTCCAATGGCCGACCGGCTATACACAGAGCTCACAGAGAATCTAAA
GTCATACAATGGGCACCCTACCGACAGAAGATGCACCCTCAATGAAAATCGTACCT
GTACATGTCAAGGAATTGATCCAGAGACTTGTGGAGCTTCATTCTCTTTTGGCTGTT
CATGGAGTATGTACTTTAATGGCTGTAAGTTTGGTAGAAGCCCAAGCCCCAGAAGA
TTTAGAATTGATCCAAGCTCTCCCTTACATGAAAAAACCTTGAAGATAACTTACAG
AGTTTGGCTACACGATTAGCTCCAATTTATAAGCAGTATGCTCCAGTAGCTTACCAA
AATCAGGTGGAATATGAAAATGTTGCCCGAGAATGTCGGCTTGGCAGCAAGGAAG
GTCGACCCTTCTCTGGGGTCACTGCTTGCCTGGACTTCTGTGCTCATCCCCACAG
GGACATTCACAACATGAATAATGGAAGCACTGTGGTTTGTACCTTAACTCGAGAAG
ATAACCGCTCTTTGGGTGTTATTCTCAAGATGAGCAGCTCCATGTGCTACCTCTTT
ATAAGCTTTCAGACACAGATGAGTTTGGCTCCAAGGAAGGAATGGAAGCCAAGATC
AAATCTGGGGCCATCGAGGTCCTGGCACCCCGCCGCAAAAAAGAACGTGTTTCA
CTCAGCCTGTTCCCGTCTGGAAAGAAGAGGGCTGCGATGATGACAGAGGTTCT
TGCACATAAGATAAGGGCAGTGGAAGAAGAAACCTATTCCCGAATCAAGCGGAAG
AATAACTCAACAACAACAACAACAGTAAGCCTTCGTCACTGCCAACCTTAGGGAG
TAACACTGAGACCGTGCAACCTGAAGTAAAAAGTGAAACCGAACCCCATTTTATCT
TAAAAAGTTCAGACAACACTAAAACCTTATTCTGCTGATGCCATCCGCTCCTCACCCA
GTGAAAGAGGCATCTCCAGGCTTCTCCTGGTCCCGAAGACTGCTTCAGCCACAC
CAGCTCCACTGAAGAATGACGCAACAGCCTCATGCGGGTTTTAGAAAAGAAGCAG
CACTCCCCACTGTACGATGCCTTCGGGAAGACTCAGTGGTGCCAATGCTGCAGCT
GCTGATGGCCCTGGCATTTCACAGCTTGGCGAAGTGGCTCCTCTCCCCACCCTGT
CTGCTCCTGTGATGGAGCCCTCATTAACTTCTGAGCCTTCCACTGGTGTGACTGAG
CCGCTAACGCCTCATCAGCCAAACCACAGCCCTCCTTCTCACCTCTCCTCAAGA
CCTTGCCTCTTCTCCAATGGAAGAAGATGAGCAGCATTCTGAAGCAGATGAGCCTC
CATCAGACGAACCCCTATCTGATGACCCCTGTCACCTGCTGAGGAGAAATTGCC
CCACATTGATGAGTATTGGTCAGACAGTGAGCACATCTTTTTGGATGCAAATATTG
GTGGGGTGGCCATCGCACCTGCTCACGGCTCGGTTTTGATTGAGTGTGCCCGGC
GAGAGCTGCACGCTACCACTCCTGTTGAGCACCCCAACCGTAATCATCCAACCCG
CCTCTCCCTTGTCTTTTACCAGCACAAAACCTAAATAAGCCCAACATGGTTTTGA
ACTAAACAAGATTAAGTTTGAAGGCTAAAGAAGCTAAGAATAAGAAAATGAAGGCCT
CAGAGCAAAAAGACCAGGCAGCTAATGAAGGTCCAGAACAGTCCTCTGAAGTAAAT
GAATTGAACCAAATTCCTTCTCATAAAGCATTAACTAACCCATGACAATGTTGTC
ACCGTGTCCCTTATGCTCTCACACACGTTGCGGGGCCCTATAACCATTGGGTCTG
AAAGGGTGGGCGCGCCGACCCAGCTTTCTTGTACAAAGTGGTTCGATAATTCTTAA
TTAACTAGTTCTAGAGCGGCCGCCACCGCGGTGGAGCTCTAGGTGAGTCTAGAG
AGTTAATTAAGACCCGGGACTAGTCCCTAGAGTCTGCTTTAATGAGATATGCGAG
ACGCCTATGATCGCATGATATTTGCTTTCAATTCTGTTGTGCACGTTGTAAAAAACC
TGAGCATGTGTAGCTCAGATCCTTACCGCCGGTTTCGGTTCATTCTAATGAATATAT
CACCCGTTACTATCGTATTTTTATGAATAATATTCTCCGTTCAATTTACTGATTGTAC
CCTACTACTTATATGTACAATATTAATAATGAAAACAATATATTGTGCTGAATAGGTTT

ATAGCGACATCTATGATAGAGCGCCACAATAACAAACAATTGCGTTTTATTATTACA
AATCCAATTTTAAAAAAGCGGCAGAACCGGTCAAACCTAAAAGACTGATTACATAA
ATCTTATTCAAATTTCAAAAGTGCCCCAGGGGCTAGTATCTACGACACACCGAGCG
GCGAACTAATAACGCTCACTGAAGGGA ACTCCGGTTC CCGCGCGGCGCGCATGG
GTGAGATTCTTGAAGTTGAGTATTGGCCGTCCGCTCTACCGAAAGTTACGGGCAC
CATTCAACCCGGTCCAGCACGGCGGGGTAACCGACTTGCTGCCCCGAGAATT
ATGCAGCATT TTTTGGTGTATGTGGGCCCAATGAAGTGCAGGTCAAACCTTGA
CAGTGACGACAAATCGTTGGGCGGGTCCAGGGCGAATTTTGCAGAGCT

SunTagFWAg4-22aa-TET1cd

gRNA FWAg4

U6

NOS term

TET1cd

2xNLS

Linker

1xHA

sfGFP

scFV

UBQ10

Insulator

Omega RBC

dCAS9

3xNLS

GCN4 10x 22aa

OCS term

AAAAAAGCACCGACTCGGTGCCACTTTTTCAAGTTGATAACGGACTAGCCTTATTT
TAACTTGCTATTTCTAGCTCTAAAACAAGCCCATACATCTTCCGTCAATCACTACTI
CGACTCTAGCTGTATATAAACTCAGCTTCGTTTTCTTATCTAAGCGATGTGGGACTT
TTGAAGATTGTTTTCAACTTAAATGGGCCTATATAAGAAATACTATTGTTCTTTCCCA
TATAAATGGGCTGCTTCTCTTTT CAGATTCCCAGGGGCCTTTTGAAGATTATCT
TCATATCTTAAGAATGAAGATGTTTTATTCAATCAAATCCTTGAAGGTTTCGATGCCTA
ATCATTCTAATCCTGGGACAACTATGAAACAAGATACAAAACTCCGAATGGAAA
GTTAAAAAGAAGAAAACGAAAGCTACGGTTCAAGAAAATGTAAGCTGATAAACAAA
AAAAA ACTGTATGAACGAAGAAGAAGAAAAAAGCTAAGAAGAAATGATGTATTGT
GCGGAAGGCAAGTCGAGTTTCCGTTGTTCAACGAAAGCTTAAACGTAACATAGATG
ACACCGCGCGGATAATTTATCCTAGTTTGC GCGCTATATTTGTTTTCTATCGCGT
ATTAATGTATAATTGCGGGACTCTAATCATAAAAACCCATCTCATAAATAACGTCA
TGCATTACATGTTAATTATTACATGCTTAACGTAATTCAACAGAAATTATATGATAAT
CATCGCAAGACCGGCAACAGGATTCAATCTTAAGAACTTTATTGCCAAATGTTTGA
ACGATCGGGGAAATTGAGCTCAA ACTTACGGCCATGGCGTAGGCGGCCTTTTCC
GTTGTGATCTTTCGCGGTCTCCTCCTTGT TTTTGGACTAGTACCACCACCGCTACCA
CCACCTTCGGTTACCGTGAAGGTTTTGGTAGCGTTCGTCGTAGGTCCATTCACCGTC
AACACCGTTGTCGTTAGCGTACTGTTTGAAA ACTTTTTCCGCGGTAGCAGCGTCAA
CAGCTTCGGTGGTGGTTTACCTTT CAGGGTTTTACCGTTCAGGATAAGCTTGTAC

TCTTCGGTCCGAGATCCTCCTCCCGTACGTCAGACCCAATGGTTATAGGGCCCCG
CAACGTGTGTGAGAGCATAAGGGGACACGGTGACAACATTGTCATGGGTTAATGT
TAATGCTTTATGAGAAGGAATTTGGTTCAATTCATTTACTTCAGAGGACTGTTCTGG
ACCTTCATTAGCTGCCTGGTCTTTTTGCTCTGAGGCCTTCATTTTCTTATTCTTAGCT
TCTTTAGCCTCAAACCTAATCTTGTTAGTTCAAACCATGTTGGGGCTTATTTAGGT
TTTTGTGCTGGTAAAAGACAAGGGAGAGGCGGGTTGGATGATTACGGTTGGGGTG
CTCAACAGGAGTGGTAGCGTGACAGCTCTCGCCGGGCACACTCAATCAAACCGAG
CCGTGAGCAGGTGCGATGGCCACCCACCAATATTTGCATCCAAAAGATGTGCT
CACTGTCTGACCAATACTCATCAATGTGGGGCAATTTCTCCTCAGCAGGTGACAGG
GGGTCATCAGATAGGGGTTTCGTCTGATGGAGGCTCATCTGCTTCAGAATGCTGCT
CATCTTCTTCCATTGGAGAAGAGGCAAGGTCTTGAGGAGAGGTGAGGAAGGAGGG
CTGGTGGTTTGGCTGATGAGGCGTTAGCGGCTCAGTCACACCAAGTGGAAGGCTCA
GAATTAATGAGGGGCTCCATCACAGGAGCAGACAGGGTGGGGAGAGGAGCCACT
TCGCCAAGCTGTGAAATGCCAGGGCCATCAGCAGCTGCAGCATTGGCACCCTGA
GTCTTCCCGAAGGCATCGTACAGTGGGGAGTGTGCTTCTTTCTGAAAACCCGCAT
GAGGCTGTTGCGTCATTCTTCAGTGGAGCTGGTGTGGCTGAAGCAGTCTTCGGGG
ACCAGGAGAAGCCTGGAGATGCCTCTTTCCTGGGTGAGGAGCGGATGGCATCA
GCGAATAAGTTTTAGTGTGTGCTGAACTTTTTAAGATAAAAATGGGGTTCGGTTTAC
TTTTACTTCAGGTTGCACGGTCTCAGTGTTACTCCCTAAGGTTGGCAGTGACGAA
GGCTTACTGTTGTTTGTGTTGTTGAGTTATTCTTCCGCTTGATTCCGGGAATAGGT
TTCTTTTCCACTGCCCTTATCTTATGTGCAAGAACCTCTGTCATCATCGCAGCCCTC
TTCTTTCCAGAACGGGGAACAGGCTGAGTGAAACACGTTCTTTTTTTGCGGGCGGG
GTGCCAGGACCTCGATGGCCCCAGATTTGATCTTGGCTTCCATTCTTCTTGGAG
CCAACTCATCTGTGTCTGAAAGCTTATAAAGAGGTAGCACATGGAGCTGCTCATC
TTGAGGAATAACACCCAAAGAGCGGTTATCTTCTCGAGTTAAGGTACAAACCACAG
TGCTTCCATTATTCATGTTGTGAATGTCCCTGTGGGGATGAGCACAGAAGTCCAGG
CAAGCAGTGACCCAGAGAAGGGTCGACCTTCTTGGCTGCCAAGCCGACATTCTC
GGGCAACATTTTCATATTCCACCTGATTTTGGTAAGCTACTGGAGCATACTGCTTAT
AAATTGGAGCTAATCGTGTAGCCAACTCTGTAAGTTATCTTCAAGGTTTTTTTTCAT
GTAAGGGAGAGCTTGGATCAATTCTAAATCTTCTGGGGCTTGGGCTTCTACCAAAC
TTACAGCCATTAAGTACATACTCCATGAACAGCCAAAAGAGAATGAAGCTCCACA
AGTCTCTGGATCAATTCCTTGACATGTACAGGTACGATTTTCATTGAGGGTGCATCT
TCTGTCCGTAGGGTGCCCATTTGATGACTTTAGATTCTCTGTGAGCTCTGTGTATA
GCCGGTCCGCCATTGGAAGAGGGATGCCATCCCACACCATGATGAGCACCACCAT
CACAGCAGTTGGACAGTGGTGGCCTGTACGCTGCCGGACCAAACAAGAAGTCTTT
TCTTCATCACTGCTTCTTCTTAAACCCACTTAGCAATTGGACACCCATGAGAGCTT
TTCCCTTCTTACCGGTGTACACTACTATTTCTATCCTTATTGCGTTTCTTTTTGAC
CATACCTATTCTCCATGATTTCCCTGACAGCAGCAACACTTGGTCTTCCCCAAGG
TGTGTATAATATGGGCCTTTGTCTTTTTGTATAACTCGATCAAGACAGCTGCAGGTG
GGCAGCCGGATCCGCCACCGCCACTTTCCGCTTTTTCTTAGGAGCTTCCACCTT
GCGTTTTTCTTGGGAGCGCCGCTGCCAGGCTGGCATAATCGGGCACGTCATAG
GGATACGTACGACCGGTCCGACCTCCACCCTTGTAGAGCTCATCCATGCCATGTGT
AATCCCAGCAGCAGTTACAACTCAAGAAGGACCATGTGGTCACGCTTTTCGTTGG
GATCTTTCGAAAGGACAGATTGTGTGACAGGTAATGGTTGTCTGGTAAAAGGACA
GGGCCATCGCCAATTGGAGTATTTGTTGATAATGGTCTGCTAGTTGAACGGAACC
ATCTTCAACGTTGTGGCGAATTTGAAGTTAGCTTGGATTCCATTCTTTGTTGTCT

GCCGTGATGTATACATTGTGTGAGTTAAAGTTGTA CTCTCGAGTTTGTGTCCAAGAAT
GTTTCCATCTTCTTTAAAATCAATACCCTTTAACTCGATACGATTAACAAGGGTATCA
CCTTCAAACCTTGACTTCAGCACGCGTCTTGTAGGTCCCCTCATCTTTGAAAGATATA
GTGCGTTCTGTACATAACCTTCGGGCATGGCACTCTTGAAAAAGTCATGCCGTTT
CATGTGATCCGGATAACGGGAAAAGCATTGAACACCATAGGTCAGAGTAGTGACA
AGTGTGGCCACGGAACAGGTAGTTTTCCAGTAGTGCAAATAAATTTAAGGGTGAG
TTTTCCGTTTGTAGCATCACCTTCACCCTCTCCACGGACAGAAAATTTGTGCCATT
AACATCACCATCTAATTCAACAAGAATTGGGACAACCTCCAGTGAAAAGTTCTTCTCC
TTTGCTACCGCTTCCACCTCCACCTGGATCCAAAGCTTCCGCCGCTCCTGAACCAC
CACCGCCACTACCTCCTCCCCAGAACCTCCGCCTCCACCAGCGTAATCTGGAAC
ATCGTATGGGTAGCTGCTCACGGTCACCAGGGTGCCCTGGCCCCAGTAGTCGAAC
AGGCCGGTCACGCAGTAGTACAGGGCGGTGTCGTGCTGCGCACCTTGCTCATCT
GCAGGTACACGGTGTCTTGCCGTTGTCCTTGCTGATGATGAAGCGGTCTTTCAG
GGCGCTGTTGTAGTCGGTGATGCCGTGCCCCAGATCACGCCGATCCACTCCAGG
CCGCGGCCGGGGGCTGGCGCACCCAGTTCACGCCGTAGTCGGTCAGGCTGAA
GCCGCTCACGGCGCAGCTCAGCTTCAGGCTGCCGCCGGGCTGCACCAGGCCGCC
GCCGCTCTCCAGCAGCTTCACCTCGCTGCCGCCGCCGCTGCTGCCGCCGCCGCC
GCTGCCGCCGCCGCCGCTGCCGCCGCCGCCGCCGCTTCAGCTCCACCTTGGTGCC
CTGGCCGAACACCCAGTGGTTGCTGTACCACAGGGCGCAGAAGTAGGTGGCGAA
GTCCTCGGGCTGCAGGCTGCTGATGGTCAGGGTGCCCTTGTGCGCCGATCAGGCT
GCCGCTGAAGCGGCTGGGCACGCCGGGGGCGCGGTTGTTGGTGCCGCCGATCA
GGCCCTTGAACAGCTTGCCGGGCTTCTCCTGCACCAGCTGGCGTAGTTGCTGGT
GGTCACGGCGCCGGTGCTGCTGCGGCAGGTGATGGTCACGCGGTCGCCACGCT
GGCGCTCAGGCTGCTGGGGCTCTGGGTATCACGATGTCGGGGCCCATAAACCC
TAGGTGTTAATCAGAAAACTCAGATTAATCGACAAATTCGATCGCACAAACTAGAA
ACTAACACCAGATCTAGATAGAAATCACAAATCGAAGAGTAATTATTCGACAAAAC
CAAATTATTTGAACAAATCGGATGATATCTATGAAACCCTAATCGAGAATTAAGATG
ATATCTAACGATCAAACCCAGAAAATCGTCTTCGATCTAAGATTAACAGAATCTAAA
CCAAAGAACATATACGAAATTGGGATCGAACGAAAACAAAATCGAAGATTTTGAGA
GAATAAGGAACACAGAAATTTACCTTGATCACGGTAGAGAGAATTGAGAGAAAGTT
TTTAAGATTTTGAGAAATTGAAATCTGAATTGTGAAGAAGAAGAGCTCTTTGGGTAT
TGTTTTATAGAAGAAGAAGAAGAAAAGACGAGGACGACTAGGTCACGAGAAAGCTA
AGGCGGTGAAGCAATAGCTAATAATAAAATGACACGTGATTGAGCGTTGTTTACA
CGCAAAGTTGTTTTGGCTAATTGCCTATTTTTAGGTTGAGGAAAAGTATTTGTGC
TTTGAGTTGATAAACACGACTCGTGTGTGCCGGCTGCAACCACTTTGACGCCGTTT
ATTACTGACTCGTCGACAACCACAATTTCTAACGGTCGTCATAAGATCCAGCCGTT
GAGATTTAACGATCGTTACGATTTATATTTTTTAGCATTATCGTTTTATTTTTAAAT
ATACGGTGGAGCTGAAAATTGGCAATAATTGAACCGTGGGTCCCCTGCATTGAAG
CGTATTTCTGATTTTCTAGAATTCTTCGTGCTTTATTTCTTTTCTTTTGTTTTTTT
GCCATTTATCTAATGCAAGTGGGCTTATAAAATCAGTGAATTTCTTGAAAAGTAAC
TTCTTTATCGTATAACATATTGTGAAATTATCCATTTCTTTAATTTTTTAGTGTTATT
GGATATTTTTGTATGATTATTGATTGCATAGGATAATGACTTTTGATCAAGTTGGT
GAACAAGTCTCGTTAAAAAAGGCAAGTGGTTGGTGACTCGATTTATTCTTGTTATT
TAATTCATATATCAATGGATCTTATTTGGGGCCTGGTCCATATTTAACACTCGTGTT
CAGTCCAATGACCAATAATTTTTTCATTAATAACAATGTAACAAGAATGATACACA
AAACATTCTTTGAATAAGTTCGCTATGAAGAAGGGAACTTATCCGGTCTTAGATCAT

CAGTTCATACAAACCTCCATAGAGTTCAACATCTTAAACAAGAATATCCTGATCTGA
AGAATGTGGAGGCTTTAGTCCCTTGGATACTTGGGAGGCTGTGGAAGAACAGAAA
CGAGCTGGTGCTTAAAGGGAGGGAATTTGGAACCAATGAGGTATTAGTAAGGACA
CAAGAAGATGCAGATGAGTGGATTAGAAGGAAAGAGGCTCAGAATGTAAGGAAAG
CACCAACCACAACACCGTTCGGGACAGACGAGAAACATGGGAAGCTCCACCACAAT
CTTGGGTTAAGTGCAACTTTGATGGGGCATGGCCAACAGAAGGATTAATAATGTGG
CTTAGGGTGGGTGCTTCGCGATCATACAGGGAAGGTGTTATGGTTAGGTGCAAGA
GCTGTGGTAAAAGTAAGAAGCGTGCTGGAAGTAGAAGTGGAGGCTCTTAGATGGG
CTGTGCTGTCATTATCCCGATTCAATTATAGGAAGATCATTTTTGAGGTGGATTCTC
AGCAACTTGTGTCTTTGGTTACATGAAAGTTATGCTTGTCAAGTCTCAATCCAATTA
TCCAAGACATAAAGTATCTACTTAGCAAGTTTGAGGATTTTATGCTTGTGCATACAA
GCCGAGAAGGAAATGGAGTGGCAGATAGAATAGCTAAGGAATCTCTTTCTTTGAG
AATTATGATCTAAAGTTGTATTCTATTGTACCAATTTGGGTTAAAAGCTCTGTTGAGC
TAGACTCATATGCATCCTAGGAAAC AAGTTGTAATGAGTTGCTGGCCTCTCTTGGG
ATTGTTTCACTCAAAAGTACTGTCCCTACACACCACAACAGAATGGTGTGTTGGAGAG
AAAGCACAGACACATCCTTGAGATGGCAAGGGCACTTAAGTTTCAGAGTGGTGTAC
CTACCAGGTTTTGGGGAGACTGTGTCAAGACTGTTGTATACCTGATCAATAGACTC
CCTACTCCAATCTTACAAGGCAAATGTCCATATGAACTACTCTATCAGAAACATGCC
AAGCTTGATCACTTGAGAGTGTTTGGGTGTCTTGCTTTTGCAGCAACACTGCCCAA
AGGTGACAAACTTGCACCTAGAGCCAAGCGAACCATCTTCATTGGTTATTCTGAGA
CTCAAAGGGTTACAGGTTGTATGACTTGGATAATAAGGTGATCATAGTGAGCAGG
GATGTAGTTTTTACAGAGAGTTTCAGTTCCTTTCAAAGAGTCCATCTCCCATGAACCT
GATATGTTCACTCGAGCAGGTTCACTTAGCTCTGAAGATACAGCTTTGCAGCTAGT
GTATAATGATATTTTTCTTCCAGCTTTCATACTGATGATGATACTCCAGTTCTT
ATTCTGACATTGTAGAGGCCAATGAGGATATCACTTTGGGGACTCATTCTACCCA
AAATCATATCACTTCAGCTGATGCTGCACCTTCAGGCCACCTGCATGCTCCTGCAG
AGTCAGTTGAGTCAGCTGAGCCTGACCTAGCAAATGCTGAATTTGAGCACCATACT
GCTGTAGCTGATCCCTCTCTAGTTCAGCAAACCTGCACACTAGACCTAAACGCAA
TGCAGGTCCTCCCATCTGGCTCAAGGACTTTGTGACACTGAACAAAGGCTCTAGG
GATGTTCCATACCCTATAGCCAACTATGTTTCCTATGATCACTTGCCTGTTCACTAT
CAAGCTTATTTGAGTGCTTTCTCACTTATACTGAACCTAAATCCTTCAAAGAAGCA
GCTCAAGATGAGAAATGGATGGAGGCCATGTCCCTTGAGATACAGGCTCTTGAGG
ATAATAACACCTGGGAGATTGTCCCTTTACCCCCTGGTAAACAGCCTATAGGGTCC
AAATGGGTGTACAAAATTAATACAAAGCTAATGGTGAAGTTGACAGGTTTAAGGC
AAGGCTAGTGGCCAAGGGATACACTCAGCAAGAAGGCCTTACTACCATGAAACT
TTTTCTCCAGTGGCCAAAATGGTCACTGTAAAAGCTGTCATATCTGTTGCTGCTTCC
AAGGGCTGGTTCCTTTTCCAGATGGATGTCAACAATGCTTTTCTACAAGGTGACCT
CATGGAAGAAGTTTATATGTCTCTGCCTCAGGGTTTTACAGCCAAGGGGAGACCA
AAGTGTGCAGGCTGTTGAATCCCTCTATGGTTTAAAGCAAGCATCAAGGCAGTGGA
ACATCAAGCTTACCACTGTCCTTATGCAGGCTGGTTTTATGCAAAGTGCTTATGATC
ACTCCTTGTTTACCAAAGAGAGGGGACTGACCTTGTGATAATCCTGATTTATGTG
GATGATCTGTTAATAACAGGCAGCAGCAATGTTTTGATTTCAGAAGCAAAGGCAAC
CCTGCATCAGCATTTC AAGATGAAAGATTTGGGAGAACTAAAATACTTCTTAGGCAT
TGAGGTGCTGAGATCAGAAAAGGGAATCCTACTGAACCAGAGGAAGTATGCACTG
GAACTGATATCAGGTGTTGGTCTGGGAGGCTGCAGACCAGTGTCAACCCCAATGG
AACAGAACCAAAGGCTGACTACTGTAGAATATGACAAGCACTTAGGAAAGACTGAT

GATGCAGAGTTAGAGGATGTGGGTTCCCTATCAGAGACTGGTGGGAAAGCTTCTCT
ACTTGACAATCACAAGGCCAGATATCAGCTTTGCAGTGCAGGTGCTGAGTCAATTC
ATGCAGCAACCCAAACAGTCACACCTGGAAGCAGCATTGAGGGTTGTGAAGTACA
TAAAAGGTTCTCCAGGTGTTAGGAA GCGGCCGCATGCATATG AGTCTAGCTCAACA
GAGCTTTTAACCCAAATTGGTACAATAGAATACAACCTTTAGATCATAATTCTCAAAA
GAAAGAGATTCTTAGCTATTCTATCTGCCACTCCATTTCTTCTCGGCTTGTATGC
ACAAGCATAAAAATCCTCAAACCTTGCTAAGTAGATACTTTATGTCTTGGATAATTGGA
TTGAGACTTGACAAGCATAACTTTTCATGTAACCAAAGACACAAGTTGCTGAGAATC
CACCTCAAAAATGATCTTCCCTATAATTGAATCGGGATAATGACAGCACAGCCCATCT
AAGAGCCTCCACTTCTACTTCCAGCACGCTTCTTACTTTTACCACAGCTCTTGCACC
TAACCATAACACCTTCCCTGTATGATCGCGAAGCACCCACCCTAAGCCACATTTTA
ATCCTTCTGTTGGCCATGCCCCATCAAAGTTGCACTTAACCCAAGATTGTGGTGGAA
GCTTCCCATGTTTCTCGTCTGTCCCGACGGTGTGTGGTTGGTGCTTTCCTTACAT
TCTGAGCCTCTTTCCTTCTAATCCACTCATCTGCATCTTCTTGTGTCTTACTAATA
CTCATTGGTTCCAAATTCCCTCCCTTTAAGCACCCAGCTCGTTTCTGTTCTTCCACAG
CCTCCCAAGTATCCAAGGGACTAAAGCCTCCACATTCTTCAGATCAGGATATTCTT
GTTAAGATGTTGAACTCTATGGAGGTTTGTATGAACTGATGATCTAGGACCGGAT
AAGTTCCTTCTTCATAGCGAACTTATCAAAGAATGTTTTGTGTATCATTCTTGTTA
CATTGTTATTAATGAAAAAATATTATTGGTCATTGGA CTGAACACGAGTGTTAAATAT
GGACCAGGCCCAATAAGATCCATTGATATATGAATTAATAACAAGAATAAATCG
AGTCACCAAACCACTTGCCTTTTTTAACGAGACTTGTTCCACCAACTTGATACAAAAG
TCATTATCCTATGCAAATCAATAATCATACAAAAATATCCAATAACACTAAAAAATTA
AAAGAAATGGATAATTTCACAATATGTTATACGATAAAGAAGTTACTTTTCCAAGAAA
TTCACTGATTTTATAAGCCCCTTGCATTAGATAAATGGCAAAAAAAAAACAAAAAGG
AAAAGAAATAAAGCACGAAGAATTCTAGAAAATACGAAATACGCTTCAATGCAGTG
GGACCCACGGTTCAATTATTGCCAATTTTCAGCTCCACCGTATATTTAAAAAATAAA
ACGATAATGCTAAAAAATAATAATCGTAACGATCGTTAAATCTCAACGGCTGGATC
TTATGACGACCGTTAGAAATTGTGGTTGTCGACGAGTCAGTAATAAACGGCGTCAA
AGTGGTTGCAGCCGGCACACACGAGTCGTGTTTATCAACTCAAAGCACAAATACTT
TTCCTCAACCTAAAAATAAGGCAATTAGCCAAAAACAACCTTTGCGTGTAACAACGC
TCAATACACGTGTCATTTTATTATTAGCTATTGCTTACC GCCTTAGCTTTCTCGTGA
CCTAGTCGTCCCTCGTCTTTTCTTCTTCTTCTATAAAACAATACCCAAAGAGCTCT
TCTTCTTACAATTCAGATTTCAATTTCTCAAAATCTTAAAACTTTCTCTCAATTCTC
TCTACCGTGATCAAGGTAATTTCTGTGTTCCCTTATTCTCTCAAAATCTTCGATTTG
TTTTCGTTCGATCCCAATTTCTGATATGTTCTTTGGTTTAGATTCTGTTAATCTTAGA
TCGAAGACGATTTTCTGGGTTTGATCGTTAGATATCATCTTAATTCTCGATTAGGGT
TTCATAGATATCATCCGATTTGTTCAAATAATTTGAGTTTTGTGCAATAAATACTCTT
CGATTTGTGATTTCTATCTAGATCTGGTGTTAGTTTCTAGTTTGTGCGATCGAATTT
GTCGATTAATCTGAGTTTTTCTGATTAACAG GGATCATCAACAAGTTTGTACAAAAA
AGCAGGCTCTTTAAAGTATTTTTACAACAATTACCAACAACAACAACAACAACA
CATTACAATTACTATTTACAATTACAAAAAA GTTAACATGGACAAGAAGTACAGCA
TCGGCCTGGCCATCGGCACCAACTCTGTGGGCTGGGCCGTGATCACC GACGAGT
ACAAGGTGCCCAGCAAGAAATTCAAGGTGCTGGGCAACACCGACCGGCACAGCAT
CAAGAAGAACCTGATCGGCGCCCTGCTGTTGACAGCGGAGAAACAGCCGAGGC
CACCCGGCTGAAGAGAACCGCCAGAAGAAGATACACCAGACGGAAGAACCGGAT
CTGCTATCTGCAAGAGATCTTCAGCAACGAGATGGCCAAGGTGGACGACAGCTTC

TTCCACAGACTGGAAGAGTCCTTCCTGGTGGAAAGAGGATAAGAAGCACGAGCGGC
ACCCCATCTTCGGCAACATCGTGGACGAGGTGGCCTACCACGAGAAGTACCCAC
CATCTACCACCTGAGAAAGAACTGGTGGACAGCACCGACAAGGCCGACCTGCGG
CTGATCTATCTGGCCCTGGCCACATGATCAAGTTCCGGGGCCACTTCCTGATCG
AGGGCGACCTGAACCCCGACAACAGCGACGTGGACAAGCTGTTTCATCCAGCTGGT
GCAGACCTACAACCAGCTGTTTCGAGGAAAACCCCATCAACGCCAGCGGCGTGGAC
GCCAAGGCCATCCTGTCTGCCAGACTGAGCAAGAGCAGACGGCTGGAAAATCTGA
TCGCCAGCTGCCCGGCGAGAAGAAGAATGGCCTGTTTCGGCAACCTGATTGCCCT
GAGCCTGGGCCTGACCCCAACTTCAAGAGCAACTTCGACCTGGCCGAGGATGC
CAAAGTGCAGCTGAGCAAGGACACCTACGACGACGACCTGGACAACCTGCTGGCC
CAGATCGGCGACACGACGACCTGTTTCTGGCCGCCAAGAACCTGTCCGACG
CCATCCTGCTGAGCGACATCCTGAGAGTGAACACCGAGATCACCAAGGCCCCCT
GAGCGCCTCTATGATCAAGAGATACGACGAGCACACCAGGACCTGACCCCTGCTG
AAAGCTCTCGTGCGGCAGCAGCTGCCTGAGAAGTACAAAGAGATTTTCTTCGACC
AGAGCAAGAACGGCTACGCCGGCTACATCGATGGCGGAGCCAGCCAGGAAGAGT
TCTACAAGTTCATCAAGCCCATCCTGGAAAAGATGGACGGCACCGAGGAAGTCT
CGTGAAGCTGAACAGAGAGGACCTGCTGCGGAAGCAGCGGACCTTCGACAACGG
CAGCATCCCCACCAGATCCACCTGGGAGAGCTGCACGCCATTCTGCGGGCGGCA
GGAAGATTTTACCATTCTGAAGGACAACCGGGAAAAGATCGAGAAGATCCTGA
CCTTCCGCATCCCCTACTACGTGGGCCCTCTGGCCAGGGGAAACAGCAGATTCCG
CTGGATGACCAGAAAGAGCGAGGAAACCATCACCCCTGGAAGTTCGAGGAAGTG
GTGGACAAGGGCGCCAGCGCCAGAGCTTCATCGAGCGGATGACCAACTTCGAT
AAGAACCTGCCCAACGAGAAGGTGCTGCCCAAGCACAGCCTGCTGTACGAGTACT
TCACCGTGTACAACGAGCTGACCAAAGTGAAATACGTGACCGAGGGAATGAGAAA
GCCCGCCTTCCTGAGCGGCGAGCAGAAAAAAGCCATCGTGGACCTGCTGTTCAAG
ACCAACCGGAAAGTGACCGTGAAGCAGCTGAAAGAGGACTACTTCAAGAAAATCG
AGTGCTTCGACTCCGTGGAATCTCCGGCGTGGAAGATCGGTTCAACGCCTCCCT
GGGCACATAACCAGATCTGCTGAAAATTATCAAGGACAAGGACTTCCTGGACAATG
AGGAAAACGAGGACATTCTGGAAGATATCGTGCTGACCCCTGACACTGTTTGAGGA
CAGAGAGATGATCGAGGAACGGCTGAAAACCTATGCCACCTGTTTCGACGACAAA
GTGATGAAGCAGCTGAAGCGGCGGAGATACACCGGCTGGGGCAGGCTGAGCCG
GAAGCTGATCAACGGCATCCGGGACAAGCAGTCCGGCAAGACAATCCTGGATTTC
CTGAAGTCCGACGGCTTCGCCAACAGAACTTCATGCAGCTGATCCACGACGACA
GCCTGACCTTTAAAGAGGACATCCAGAAAGCCCAGGTGTCCGGCCAGGGCGATAG
CCTGCACGAGCACATTGCCAATCTGGCCGGCAGCCCCGCCATTAAGAAGGGCATC
CTGCAGACAGTGAAGGTGGTGGACGAGCTCGTGAAAGTGATGGGCCGGCACAAG
CCCGAGAACATCGTGATCGAAATGGCCAGAGAGAACCAGACCACCCAGAAGGGA
CAGAAGAACAGCCGCGAGAGAATGAAGCGGATCGAAGAGGGCATCAAAGAGCTG
GGCAGCCAGATCCTGAAAGAACACCCCGTGGAAAACACCCAGCTGCAGAACGAGA
AGCTGTACCTGTACTACCTGCAGAATGGGCGGGATATGTACGTGGACCAGGAAGT
GGACATCAACCGGCTGTCCGACTACGATGTGGACGCTATCGTGCCTCAGAGCTTT
CTGAAGGACGACTCCATCGATAACAAAGTGCTGACTCGGAGCGACAAGAACCGGG
GCAAGAGCGACAACGTGCCCTCCGAAGAGGTCGTGAAGAAGATGAAGAACTACTG
GCGCCAGCTGCTGAATGCCAAGCTGATTACCCAGAGGAAGTTCGACAATCTGACC
AAGGCCGAGAGAGGGCGCCTGAGCGAACTGGATAAGGCCGGCTTCATCAAGAGA
CAGCTGGTGGAAACCCGGCAGATCACAAAGCACGTGGCACAGATCCTGGACTCCC

GGATGAACACTAAGTACGACGAGAACGACAACTGATCCGGGAAGTGAAAGTGAT
CACCTGAAGTCCAAGCTGGTGTCCGATTTCCGGAAGGATTTCCAGTTTTACAAG
TGCGCGAGATCAACAACACTACCACCACGCCACGACGCCTACCTGAACGCCGTCGT
GGAAACCGCCCTGATCAAAAAGTACCCTAAGCTGGAAAGCGAGTTCGTGTACGGC
GACTACAAGGTGTACGACGTGCGGAAGATGATCGCCAAGAGCGAGCAGGAAATC
GGCAAGGCTACCGCCAAGTACTTCTTCTACAGCAACATCATGAACTTTTTCAAGAC
CGAGATTACCCTGGCCAACGGCGAGATCCGGAAGCGGCCTCTGATCGAGACAAA
CGGCGAAACAGGCGAGATCGTGTGGGATAAGGGCCGGGACTTTGCCACCGTGCG
GAAAGTGCTGTCTATGCCCAAGTGAATATCGTGAAAAGACCGAGGTGCAGACA
GGCGGCTTCAGCAAAGAGTCTATCCTGCCCAAGAGGAACAGCGACAAGCTGATCG
CCAGAAAGAAGGACTGGGACCCTAAGAAGTACGGCGGCTTCGACAGCCCCACCG
TGGCCTATTCTGTGCTGGTGGTGGCCAAAGTGGAAGGGCAAGTCCAAGAACT
GAAGAGTGTGAAAGAGCTGCTGGGGATCACCATCATGGAAAGAAGCAGCTTCGAG
AGAATCCCATCGACTTTCTGGAAGCCAAGGGCTACAAAGAAGTGAAAAGGACCT
GATCATCAAGCTGCCTAAGTACTCCCTGTTTCGAGCTGGAAAACGGCCGGAAGAGA
ATGCTGGCCTCTGCCGGCGAACTGCAGAAGGGAAACGAACTGGCCCTGCCCTCC
AAATATGTGAACTTCTGTACCTGGCCAGCCACTATGAGAAGCTGAAGGGCTCCC
CCGAGGATAATGAGCAGAAACAGCTGTTTGTGGAACAGCACAAACACTACCTGGA
CGAGATCATCGAGCAGATCAGCGAGTTCTCCAAGAGAGTGATCCTGGCCGACGCT
AATCTGGACAAGGTGCTGAGCGCCTACAACAAGCACAGAGACAAGCCTATCAGAG
AGCAGGCCGAGAATATCATCCACCTGTTTACCCTGACCAATCTGGGAGCCCCTGC
CGCCTTCAAGTACTTTGACACCACCATCGACCGGAAGAGGTACACCAGCACCAA
GAGGTGCTGGACGCCACCCTGATCCACCAGAGCATCACCGGCCTGTACGAGACA
CGGATCGACCTGTCTCAGCTGGGAGGCGACGCC**TATCCCTATGACGTGCCCGATT**
ATGCCAGCCTGGGCAGCGGCTCCCCAAGAAAAACGCAAGGTGGAAGATCCTAA
GAAAAGCGGAAAGTGGAAGATGCTCCAAGAAGAAGAGAAAGGTC**GACGGCATT**
GGTAGTGGGAGCAACGGCAGCAGCGGATCCAACGGTCCGACTGACGCCGCG**GAA**
GAAGAACTTTTGAGCAAGAATTATCATCTTGAGAACGAAGTGGCTCGTCTTAAGAA
AGGTTCTGGCAGTGGAGTTCTGGCTCCGGATCTGGTGGTTCGGGCTCAGGCGG
GTCCGGATCAGGCGAAGAAGTCTTTCAAAGAATTACCACCTGGAAAATGAGGTA
GCTAGACTGAAAAGGGGAGCGGAAGTGGGGGCTCCGGGTCCGGGCTCAGGGGG
CTCCGGTTCGGGAGGCTCAGGGTCCGGGGAGGAGTTGCTGAGCAAAAATTATCAT
TTGGAGAACGAAGTAGCACGACTAAAGAAAGGGTCCGGATCCGGTGGTTCAGGAT
CTGGATCCGGAGGATCAGGGTCCGGTGGGTCCGGGCTCAGGAGAGGAGTTACTCT
CGAAAATTATCATCTCGAAAACGAAGTGGCTCGGCTAAAAAGGGCAGTGGTTCT
GGAGGATCTGGGTCCGGGTCAGGCGGGTCTGGATCTGGGGGATCTGGATCTGGT
GAAGAGCTATTATCTAAAACTACCACCTCGAAAATGAGGTGGCACGCTTAAAAA
GGGAAGTGGCAGTGGTGGTCCGGATCTGGCTCTGGTGGCTCAGGCTCCGGAGG
TTCAGGTTCCGGGGAAGAGCTACTATCCAAGAATTATCATCTTGAGAACGAGGTAG
CGCGTTTGAAGAAGGGTCCGGCTCAGGAGGATCTGGGTCCGGTCCAGGGGTT
CCGGGTCCAGGCGGGTCCGGGTCCAGGCGAGGAAGTCTCTCGAAGAAGTATCATC
TTGAAAATGAGGTCGCTCGATTAAAAAGGGATCGGGCAGTGGTGGGTCCGGCTC
CGTTCCGGAGGATCCGGATCTGGGGGCTCCGGATCCGGGAGGAACTACTTTC
AAAGAATTACCACCTCGAAAACGAAGTAGCTCGATTAAAGAAAGGTTCCAGGGTCG
GTGGCTCAGGTTCCGGATCAGGTGGGTCCAGGCTCCGGTGGTTCAGGTTCCGGAG
AGAATTACTGAGTAAAAATTATCATCTGGAAGTGGTGGTCCAGGACTAAAAAG

GGGAGTGGTTCTGGCGGTTCTGGGATCTGGCTCTGGGGGCTCTGGGTCTGGGAGGG
TCTGGGTCTGGCGAGGAATTGCTATCGAAAAATTATCATCTTGAGAACGAAGTTGC
TAGGCTCAAAAAGGGCTCAGGCTCAGGCGGGTCCGGGTCTAGGGTCTGGGAGGTTCC
CGGATCCGGGGGATCAGGCTCAGGGTAA^{CCCCGGGGGCGCGCCATGATAACTAGA}
GTCCTGCTTTAATGAGATATGCGAGACGCCTATGATCGCATGATATTTGCTTTCAAT
TCTGTTGTGCACGTTGTAACCACTGAGCATGTGTAGCTCAGATCCTTACCGCCG
GTTTCGGTTCATTCTAATGAATATATCACCCGTTACTATCGTATTTTTATGAATAATA
TTCTCCGTTCAATTTACTGATTGTACCCTACTACTTATATGTACAATATTAATAATGAA
AACAAATATATTGTGCTGAATAGGTTTATAGCGACATCTATGATAGAGCGCCACAATA
ACAAACAATTGCGTTTTATTATTACAAATCCAATTTTAAAAAAGCGGCAGAACCGG
TCAAACCTAAAAGACTGATTACATAAATCTTATTCAAATTTCAAAGTGCCCCAGGG
GCTAGTATCTACGACACACCGAGCGGCGAATAACGCTCACTGAAGGGAAGT
CCGGTTCCTCCGCGCGCGCATGGGTGAGATTCCTTGAAGTTGAGTATTGGCCGT
CCGCTCTACCGAAAGTTACGGGCACCATTCAACCCGGTCCAGCACGGCGGCGCG
GTAACCGACTTGCTGCCCGAGAATTATGCAGCATTTTTTTGGTGTATGTGGGCC
CAAATGAAGTGCAGGTCAAACCTTGACAGTGACGACAAATCGTTGGGCGGGTCCA
GGGCGAATTTTGCACAACATGTCGAGGCTCAGCAGGACCGGCATGCAAGCTAGC
TTACTAGTGATATTCTATAGTGTCACCTAAATCTGCGGC

SunTagFWAg4-14aa-TET1cd

gRNA FWAg4

U6

NOS term

TET1cd

2xNLS

Linker

1xHA

sfGFP

scFV

UBQ10

Insulator

Omega RBC

dCAS9

3xNLS

GCN4 10x 14aa

OCS term

AAAAAAGCACCGACTCGGTGCCACTTTTTCAAGTTGATAACGGACTAGCCTTATTT
TAACCTTGCTATTTCTAGCTCTAAAACAAGCCCATACATCTTTCCGTCAATCACTACTT
CGACTCTAGCTGTATATAAACTCAGCTTCGTTTTCTTATCTAAGCGATGTGGGACTT
TTGAAGATTGTTTTCAACTTAAATGGGCCTATATAAGAAATACTATTGTTCTTTCCCA
TATAAATGGGCCTGCTTCTCTTTTCCAGATTCCCAGGGGCCTTTTGAAGATTATCT
TCATATCTTAAGAATGAAGATGTTTTATTCAATCAAATTTCTTGAAGGTTTCGATGCCTA
ATCATTCTAATCCTGGGACAACTATGAAACAAGATACAAAACTCCGAATGGAAA
GTTAAAAAGAAGAAAACGAAAGCTACGGTTCAAGAAAATGTAAGCTGATAAACAAA
AAAAAAGTATGAACGAAGAAGAAGAAAAAAGCTAAGAAGAATGATGTATTGT

GCGGAAGGCAAGTCGAGTTTCCGTTGTTCAACGAAAGCTTAAACGTAACATAGATG
ACACCGCGCGGATAATTTATCCTAGTTTGC GCGCTATATTTTGT TTTCTATCGCGT
ATTAATGTATAATTGCGGGACTCTAATCATAAAAACCCATCTCATAAATAACGTCA
TGCATTACATGTTAATTATTACATGCTTAACGTAATTCAACAGAAATTATATGATAAT
CATCGCAAGACCGGCAACAGGATTCAATCTTAAGAACTTTATTGCCAAATGTTTGA
ACGATCGGGGAAATTTCGAGCTCAAACCTACGGCCATGGCGTAGGCGGCCTTTTCC
GTTGTGATCTTCGCGGTCTCCTCCTTGT TTTTGGACTAGTACCACCACCGCTACCA
CCACCTTCGGTTACCGTGAAGGTTTTGGTAGCGTCGTCGTAGGTCCATTCACCGTC
AACACCGTTGTCGTTAGCGTACTGTTTGAAAACCTTTTCCGCGGTAGCAGCGTCAA
CAGCTTCGGTGGTGGTTTCACCTTTCAGGGTTTTACCGTTCAGGATAAGCTTGTAC
TCTTCGGTCCGAGATCCTCCTCCCGTACGTCAGACCCAATGGTTATAGGGCCCCG
CAACGTGTGTGAGAGCATAAGGGGACACGGTGACAACATTGTCATGGGTAAATGT
TAATGCTTTATGAGAAGGAATTTGGTTCAATTCATTTACTTCAGAGGACTGTTCTGG
ACCTTCATTAGCTGCCTGGTCTTTTTGCTCTGAGGCCTTCATTTTCTTATTCTTAGCT
TCTTTAGCCTCAAACCTAATCTTGTTAGTTCAAACCATGTTGGGGCTTATTTAGGT
TTTTGTGCTGGTAAAAGACAAGGGAGAGGCGGGTTGGATGATTACGGTTGGGGTG
CTCAACAGGAGTGGTAGCGTGCAGCTCTCGCCGGGCACACTCAATCAAACCGAG
CCGTGAGCAGGTGCGATGGCCACCCACCAATATTTGCATCCAAAAGATGTGCT
CACTGTCTGACCAATACTCATCAATGTGGGGCAATTTCTCCTCAGCAGGTGACAGG
GGGTCATCAGATAGGGGTTTCGTCTGATGGAGGCTCATCTGCTTCAGAATGCTGCT
CATCTTCTTCCATTGGAGAAGAGGGCAAGGTCTTGAGGAGAGGTGAGGAAGGAGGG
CTGGTGGTTTGGCTGATGAGGCGTTAGCGGCTCAGTCACACCAGTGGAAGGCTCA
GAATTAATGAGGGGCTCCATCACAGGAGCAGACAGGGTGGGGAGAGGAGCCACT
TCGCCAAGCTGTGAAATGCCAGGGCCATCAGCAGCTGCAGCATTGGCACCCTGA
GTCTTCCCGAAGGCATCGTACAGTGGGGAGTGTGCTTCTTTCTGAAAACCCGCAT
GAGGCTGTTGCGTCATTCTTCAGTGGAGCTGGTGTGGCTGAAGCAGTCTTCGGGG
ACCAGGAGAAGCCTGGAGATGCCTCTTTCACTGGGTGAGGAGCGGATGGCATCA
GCGAATAAGTTTTAGTGTGTCTGAACTTTTTAAGATAAAAATGGGGTTCGGTTTAC
TTTTACTTCAGGTTGCACGGTCTCAGTGTTACTCCCTAAGGTTGGCAGTGACGAA
GGCTTACTGTTGTTTGTGTTGTTGAGTTATTCTTCCGCTTGATTCCGGGAATAGGT
TTCTTTTCCACTGCCCTTATCTTATGTGCAAGAACCTCTGTCATCATCGCAGCCCTC
TTCTTTCCAGAACGGGGAACAGGCTGAGTGAAACACGTTCTTTTTTTGCGGGCGGG
GTGCCAGGACCTCGATGGCCCCAGATTTGATCTTGGCTTCCATTCCCTTCCCTGGAG
CCAAACTCATCTGTGTCTGAAAGCTTATAAAGAGGTAGCACATGGAGCTGCTCATC
TTGAGGAATAACACCCAAAGAGCGGTTATCTTCTCGAGTTAAGGTACAAACCACAG
TGCTTCCATTATTCATGTTGTGAATGTCCCTGTGGGGATGAGCACAGAAGTCCAGG
CAAGCAGTGACCCAGAGAAGGGTCGACCTTCCCTGCTGCCAAGCCGACATTCTC
GGGCAACATTTTCATATTCCACCTGATTTTGGTAAGCTACTGGAGCATACTGCTTAT
AAATTGGAGCTAATCGTGTAGCCAAACTCTGTAAGTTATCTTCAAGGTTTTTTTTCAT
GTAAGGGAGAGCTTGGATCAATTCTAAATCTTCTGGGGCTTGGGCTTCTACCAAAC
TTACAGCCATTAAGTACATACTCCATGAACAGCCAAAAGAGAATGAAGCTCCACA
AGTCTCTGGATCAATTCCTTGACATGTACAGGTACGATTTTCATTGAGGGTGCATCT
TCTGTCCGTAGGGTGCCATTGTATGACTTTAGATTCTCTGTGAGCTCTGTGTATA
GCCGGTCCGGCCATTGGAAGAGGGATGCCATCCCACACCATGATGAGCACCACCAT
CACAGCAGTTGGACAGTGGTGGCCTGTACGCTGCCGGACCAAACAAGAAGCTTTT
TCTTCATCACTGCTTCTTCTTAAACCCACTTAGCAATTGGACACCCATGAGAGCTT

TTCCCTTCTTTACCGGTGTACACTACTATTTCTATCCTTATTGCGTTTCCTTTTTGAC
CATACTATTCTCCATGATTTCCCTGACAGCAGCAACACTTGGTCCTGCCCAAGG
TGTGTATAATATGGGCCTTTGTCTTTTTGTATAACTCGATCAAGACAGCTGCAGGTG
GGCAGCCCGGATCCGCCACCGCCCACTTTCCGCTTTTTCTTAGGAGCTTCCACCTT
GCGTTTTTCTTGGGAGCGCCGCTGCCAGGCTGGCATAATCGGGCACGTCATAG
GGATACGTACGACCGGTCCGACCTCCACC TTGTAGAGCTCATCCATGCCATGTGT
AATCCCAGCAGCAGTTACAACTCAAGAAGGACCATGTGGTCACGCTTTTCGTTGG
GATCTTTCGAAAGGACAGATTGTGTCGACAGGTAATGGTTGTCTGGTAAAAGGACA
GGGCCATCGCCAATTGGAGTATTTGTTGATAATGGTCTGCTAGTTGAACGGAACC
ATCTTCAACGTTGTGGCGAATTTGAAGTTAGCTTTGATTCCATTCTTTGTTGTCT
GCCGTGATGTATACATTGTGTGAGTTAAAGTTGACTCGAGTTTGTGTCCAAGAAT
GTTCCATCTTCTTAAATCAATACCCTTAACTCGATACGATTAACAAGGGTATCA
CCTTCAAACCTTGACTTCAGCACGCGTCTTGTAGGTCCCGTCATCTTGAAAGATATA
GTGCGTTCCTGTACATAACCTTCGGGCATGGCACTCTTGAAAAAGTCATGCCGTTT
CATGTGATCCGGATAACGGGAAAAGCATTGAACACCATAGGTCAGAGTAGTGACA
AGTGTGGCCACGGAACAGGTAGTTTTCCAGTAGTGCAAATAAATTAAGGGTGAG
TTTTCCGTTTGTAGCATCACCTTACCCTCTCCACGGACAGAAAATTTGTGCCATT
AACATCACCATCTAATTCAACAAGAATTGGGACAACCTCCAGTGAAAAGTTCTTCTCC
TTTGTACCGCTTCCACCTCCACCTGGATCCAA GCTTCCGCCGCTCCTGAACCAC
CACCGCCACTACCTCCTCCCCAGAACCTCCGCCTCCACCAGCGTAATCTGGAAC
ATCGTATGGGTAGCTGCTCACGGTCACCAGGGTGCCCTGGCCCCAGTAGTCGAAC
AGGCCGGTCACGCAGTAGTACAGGGCGGTGTCGTCGCTGCGCACCTTGCTCATCT
GCAGGTACACGGTGTTCTTGCCGTTGTCCTTGCTGATGATGAAGCGGTCCTTCAG
GGCGCTGTTGTAGTCGGTGATGCCGTGCCCCAGATCACGCCGATCCACTCCAGG
CCGCGGCCGGGGGCTGGCGCACCCAGTTCACGCCGTAGTCGGTCAGGCTGAA
GCCGCTCACGGCGCAGCTCAGCTTCAGGCTGCCGCCGGGCTGCACCAGGCGGCC
GCCGCTCTCCAGCAGCTTACCTCGCTGCCGCCGCCGCTGCTGCCGCCGCCGCC
GCTGCCGCCGCCGCCGCTGCCGCCGCCGCCGCCGCTTCAGCTCCACCTTGGTGCC
CTGGCCGAACACCAGTGTTGCTGTACCACAGGGCGCAGAAGTAGGTGGCGAA
GTCCTCGGGCTGCAGGCTGCTGATGGTCAGGGTGGCCTTGTCCCGATCAGGCT
GCCGCTGAAGCGGCTGGGCACGCCGGGGGCGCGGTTGTTGGTGCCGCCGATCA
GGCCCTTGAACAGCTTGCCGGGCTTCTCTGCACCAGCTGGCGTAGTTGCTGGT
GGTCACGGCGCCGGTGCTGCTGCGGCAGGTGATGGTCACGCGGTCGCCACGCT
GGCGCTCAGGCTGCTGGGGCTCTGGGTGATCACGATGTCGGGGCCCAT AAACCC
TAGG TGTTAATCAGAAAACTCAGATTAATCGACAAATTCGATCGCACAAACTAGAA
ACTAACACCAGATCTAGATAGAAATCACAAATCGAAGAGTAATTATTCGACAAAAC
CAAATTATTTGAACAAATCGGATGATATCTATGAAACCCTAATCGAGAATTAAGATG
ATATCTAACGATCAAACCCAGAAAATCGTCTTCGATCTAAGATTAACAGAATCTAAA
CCAAAGAACATATACGAAATTGGGATCGAACGAAAACAAAATCGAAGATTTTGAGA
GAATAAGGAACACAGAAATTTACCTTGATCACGGTAGAGAGAATTGAGAGAAAGTT
TTTAAGATTTTGAGAAATTGAAATCTGAATTGTGAAGAAGAAGAGCTCTTTGGGTAT
TGTTTTATAGAAGAAGAAGAAGAAAAGACGAGGACGACTAGGTCACGAGAAAGCTA
AGGCGGTGAAGCAATAGCTAATAATAAAAATGACACGTGTATTGAGCGTTGTTTACA
CGCAAAGTTGTTTTGGCTAATTGCCTATTTTTAGGTTGAGGAAAAGTATTTGTGC
TTTGAGTTGATAAACACGACTCGTGTGTGCCGGCTGCAACCCTTTGACGCCGTTT
ATTACTGACTCGTCGACAACCACAATTTCTAACGGTTCGTCATAAGATCCAGCCGTT

GAGATTTAACGATCGTTACGATTTATATTTTTTTAGCATTATCGTTTTATTTTTTAAAT
ATACGGTGGAGCTGAAAATTGGCAATAATTGAACCGTGGGTCCCCTGCATTGAAG
CGTATTTTCGTATTTTCTAGAATTCTTCGTGCTTTATTTCTTTTCCTTTTTGTTTTTTTT
GCCATTTATCTAATGCAAGTGGGCTTATAAAATCAGTGAATTTCTTGAAAAGTAAC
TTCTTTATCGTATAACATATTGTGAAATTATCCATTTCTTTAATTTTTTAGTGTTATT
GGATATTTTTGTATGATTATTGATTGTCATAGGATAATGACTTTTGTATCAAGTTGGT
GAACAAGTCTCGTTAAAAAAGGCAAGTGGTTTGGTGACTCGATTTATTCTTGTTATT
TAATTCATATATCAATGGATCTTATTTGGGGCCTGGTCCATATTTAACTCGTGTT
CAGTCCAATGACCAATAATTTTTTTCATTAATAACAATGTAACAAGAATGATACACA
AAACATTCTTTGAATAAGTTCGCTATGAAGAAGGGAAGTTATCCGGTCCCTAGATCAT
CAGTTCATACAAACCTCCATAGAGTTCAACATCTTAAACAAGAATATCCTGATCTGA
AGAATGTGGAGGCTTTAGTCCCTTGATACTTGGGAGGCTGTGGAAGAACAGAAA
CGAGCTGGTGCTTAAAGGGAGGGGAATTTGGAACCAATGAGGTATTAGTAAGGACA
CAAGAAGATGCAGATGAGTGGATTAGAAGGAAAGAGGCTCAGAATGTAAGGAAAG
CACCAACCACAACACCGTTCGGGACAGACGAGAAACATGGGAAGCTCCACCACAAT
CTTGGGTTAAGTGCAACTTTGATGGGGCATGGCCAACAGAAGGATTAAAATGTGG
CTTAGGGTGGGTGCTTCGCGATCATACAGGGGAAGGTGTTATGGTTAGGTGCAAGA
GCTGTGGTAAAAGTAAGAAGCGTGCTGGAAGTAGAAGTGGAGGCTCTTAGATGGG
CTGTGCTGTCATTATCCCGATTCAATTATAGGAAGATCATTTTTGAGGTGGATTCTC
AGCAACTTGTGTCTTTGGTTACATGAAAGTTATGCTTGTCAAGTCTCAATCCAATTA
TCCAAGACATAAAGTATCTACTTAGCAAGTTTGGAGATTTTATGCTTGTGCATACAA
GCCGAGAAGGAAATGGAGTGGCAGATAGAATAGCTAAGGAATCTCTTTCTTTGAG
AATTATGATCTAAAGTTGTATTCTATTGTACCAATTTGGGTTAAAAGCTCTGTTGAGC
TAGACTCATATGCATCCTAGGAAACAAAGTTGTAATGAGTTGCTGGCCTCTCTTGGG
ATTGTTCAACAAAGTAGCTGTCCCTACACACCACAACAGAATGGTGTGTGGAGAG
AAAGCACAGACACATCCTTGAGATGGCAAGGGCACTTAAGTTTCAGAGTGGTGTAC
CTACCAGGTTTTGGGGAGACTGTGTCAAGACTGTTGTATACCTGATCAATAGACTC
CCTACTCCAATCTTACAAGGCAAATGTCCATATGAACTACTCTATCAGAAACATGCC
AAGCTTGATCACTTGAGAGTGTTTGGGTGTCTTGCTTTTGCAGCAACACTGCCCAA
AGGTGACAACTTGACCTAGAGCCAAGCGAACCATCTTCATTGGTTATTCTGAGA
CTCAAAGGGTTACAGGTTGTATGACTTGGATAATAAGGTGATCATAGTGAGCAGG
GATGTAGTTTTTCAGAGAGTTTCAGTTCCCTTTCAAAGAGTCCATCTCCCATGAACCT
GATATGTTCACTCGAGCAGTTCACTTAGCTCTGAAGATACAGCTTTGCAGCTAGT
GTATAATGATATTTTTCTTCCAGCTTTCATACTGATGATGATACTCCAGTTCTT
ATTCCTGACATTGTAGAGGCCAATGAGGATATCACTTTGGGGACTCATTCTACCCA
AAATCATATCACTTCAGCTGATGCTGCACCTTCAGGCCACCTGCATGCTCCTGCAG
AGTCAGTTGAGTCAGCTGAGCCTGACCTAGCAAATGCTGAATTTGAGCACCATACT
GCTGTAGCTGATCCCTCTCTAGTTCCAGCAAACCTGCACACTAGACCTAAACGCAA
TGCAGGTCCTCCCATCTGGCTCAAGGACTTTGTGACACTGAACAAAGGCTCTAGG
GATGTTCCATACCCTATAGCCAACCTATGTTTCCTATGATCACTTGCCTGTTCACTAT
CAAGCTTATTTGAGTGCTTTCTCCACTTATACTGAACCTAAATCCTTCAAAGAAGCA
GCTCAAGATGAGAAATGGATGGAGGCCATGTCCCTTGAGATACAGGCTCTTGAGG
ATAATAACACCTGGGAGATTGTCCCTTACCCCCTGGTAAACAGCCTATAGGGTCC
AAATGGGTGTACAAAATTAATACAAAGCTAATGGTGAAGTTGACAGGTTAAGGC
AAGGCTAGTGGCCAAGGGATACACTCAGCAAGAAGGCCTTACTACCATGAAACT
TTTTCTCCAGTGGCCAAAATGGTCACTGTAAAAGCTGTCATATCTGTTGCTGCTTCC

AAGGGCTGGTTCCTTTTCCAGATGGATGTCAACAATGCTTTTCTACAAGGTGACCT
CATGGAAGAAGTTTATATGTCTCTGCCTCAGGGTTTTACAGCCAAGGGGAGACCA
AAGTGTGCAGGCTGTTGAATCCCTCTATGGTTTAAAGCAAGCATCAAGGCAGTGA
ACATCAAGCTTACCACTGTCCTTATGCAGGCTGGTTTTATGCAAAGTGCTTATGATC
ACTCCTTGTTTACCAAAAAGAGAGGGGACTGACCTTGTGATAATCCTGATTTATGTG
GATGATCTGTTAATAACAGGCAGCAGCAATGTTTTGATTTGAGAAGCAAAGGCAAC
CCTGCATCAGCATTTCAGATGAAAGATTTGGGAGAACTAAAATACTTCTTAGGCAT
TGAGGTGCTGAGATCAGAAAAGGGAATCCTACTGAACCAGAGGAAGTATGCACTG
GAACTGATATCAGGTGTTGGTCTGGGAGGCTGCAGACCAGTGTCAACCCCAATGG
AACAGAACCAAAGGCTGACTACTGTAGAATATGACAAGCACTTAGGAAAGACTGAT
GATGCAGAGTTAGAGGATGTGGGTTCCATCAGAGACTGGTGGGAAAGCTTCTCT
ACTTGACAATCACAAGGCCAGATATCAGCTTTGCAGTGCAGGTGCTGAGTCAATTC
ATGCAGCAACCCAAACAGTCACACCTGGAAGCAGCATTGAGGGTTGTGAAGTACA
TAAAGGTTCTCCAGGTGTTAGGAAAGCGGCCGCATGCATATGAGTCTAGCTCAACA
GAGCTTTTAACCCAAATTGGTACAATAGAATACAACTTTAGATCATAATTCTCAAAA
GAAAGAGATTCCCTAGCTATTCTATCTGCCACTCCATTTCTTCTCGGCTTGTATGC
ACAAGCATAAAATCCTCAAACCTTGCTAAGTAGATACTTTATGTCTTGGATAATTGGA
TTGAGACTTGACAAGCATAACTTTCATGTAACCAAAGACACAAGTTGCTGAGAATC
CACCTCAAAAATGATCTTCCCTATAATTGAATCGGGATAATGACAGCACAGCCCATCT
AAGAGCCTCCACTTCTACTTCCAGCACGCTTCTTACTTTTACCACAGCTCTTGCACC
TAACCATAACACCTTCCCTGTATGATCGCGAAGCACCCACCCTAAGCCACATTTTA
ATCCTTCTGTTGGCCATGCCCCATCAAAGTTGCACTTAACCCAAGATTGTGGTGGAA
GCTTCCCATGTTTCTCGTCTGTCCCGACGGTGTTGTGGTTGGTGCTTTCCTTACAT
TCTGAGCCTCTTTCCTTCTAATCCACTCATCTGCATCTTCTTGTGTCCCTACTAATA
CTCATTGGTTCCAAATTCCCTCCCTTAAAGCACCCAGCTCGTTTCTGTTCTTCCACAG
CCTCCCAAGTATCCAAGGGACTAAAGCCTCCACATTCTTCAGATCAGGATATTCTT
GTTAAGATGTTGAACTCTATGGAGGTTTGTATGAACTGATGATCTAGGACCGGAT
AAGTCCCTTCTTCATAGCGAACTTATTCAAAGAATGTTTTGTGTATCATTCTTGTTA
CATTGTTATTAATGAAAAAATATTATTGGTCATTGGAAGTGAACACGAGTGTTAAATAT
GGACCAGGCCCAATAAGATCCATTGATATATGAATTAATAACAAGAATAAATCG
AGTCACCAAACCACTTGCCTTTTTTAACGAGACTTGTTACCAACTTGATACAAAAG
TCATTATCCTATGCAAATCAATAATCATAAAAAATCCAATAACACTAAAAAATTA
AAAGAAATGGATAATTTACAATATGTTATACGATAAAGAAGTACTTTTCCAAGAAA
TTCCTGATTTTATAAGCCCACTTGCATTAGATAAATGGCAAAAAAAAAACA AAAAGG
AAAAGAAATAAAGCACGAAGAATTCTAGAAAATACGAAATACGCTTCAATGCAGTG
GGACCCACGGTTC AATTATTGCCAATTTTCAGCTCCACCGTATATTTAAAAAATAAA
ACGATAATGCTAAAAAAATATAAATCGTAACGATCGTTAAATCTCAACGGCTGGATC
TTATGACGACCGTTAGAAATTGTGGTTGTCGACGAGTCAGTAATAAACGGCGTCAA
AGTGGTTGCAGCCGGCACACACGAGTCGTGTTTATCAACTCAAAGCACAAATACTT
TTCCTCAACCTAAAAATAAGGCAATTAGCCAAAAACAACCTTTGCGTGTAACAACGC
TCAATACACGTGTCATTTTATTATTAGCTATTGCTTCACCGCCTTAGCTTTCTCGTGA
CCTAGTCGTCCTCGTCTTTTCTTCTTCTTCTATAAAAACAATACCCAAAGAGCTCT
TCTTCTTACAATTCAGATTTCAATTTCTCAAAATCTTAAAACTTTCTCTCAATTCTC
TCTACCGTGATCAAGGTAATTTCTGTGTTCCCTATTCTCTCAAAATCTTCGATTTTG
TTTTCGTTCGATCCCAATTCGTATATGTTCTTTGGTTAGATTCTGTTAATCTTAGA
TCGAAGACGATTTTCTGGGTTTGTATCGTTAGATATCATCTTAATTCTCGATTAGGGT

TTCATAGATATCATCCGATTTGTTCAAATAATTTGAGTTTTGTGCGAATAAATTACTCTT
CGATTTGTGATTTCTATCTAGATCTGGTGTAGTTTCTAGTTTGTGCGATCGAATTT
GTCGATTAATCTGAGTTTTTCTGATTAACAGGGATCATCAACAAGTTTGTACAAAAA
AGCAGGCTCTTTAAAGTATTTTTACAACAATTACCAACAACAACAACAACAACA
CATTACAATTACTATTTACAATTACAAAAAAAGTTAACATGGACAAGAAGTACAGCA
TCGGCCTGGCCATCGGCACCAACTCTGTGGGCTGGGCCGTGATCACCGACGAGT
ACAAGGTGCCAGCAAGAAATTCAAGGTGCTGGGCAACACCGACCGGCACAGCAT
CAAGAAGAACCTGATCGGCGCCCTGCTGTTGACAGCGGAGAAACAGCCGAGGC
CACCCGGCTGAAGAGAACCGCCAGAAGAAGATACACCAGACGGAAGAACCGGAT
CTGCTATCTGCAAGAGATCTTCAGCAACGAGATGGCCAAGGTGGACGACAGCTTC
TTCCACAGACTGGAAGAGTCCTTCTGGTGGAAAGAGGATAAGAAGCACGAGCGGC
ACCCCATCTTCGGCAACATCGTGGACGAGGTGGCCTACCACGAGAAGTACCCAC
CATCTACCACCTGAGAAAGAACTGGTGGACAGCACCGACAAGGCCGACCTGCGG
CTGATCTATCTGGCCCTGGCCACATGATCAAGTTCCGGGGCCACTTCTGATCG
AGGGCGACCTGAACCCCGACAACAGCGACGTGGACAAGCTGTTTCATCCAGCTGGT
GCAGACCTACAACCAGCTGTTTCGAGGAAAACCCATCAACGCCAGCGGCGTGGAC
GCCAAGGCCATCCTGTCTGCCAGACTGAGCAAGAGCAGACGGCTGGAAAATCTGA
TCGCCAGCTGCCCGGCGAGAAGAAGAATGGCCTGTTCCGGCAACCTGATTGCCCT
GAGCCTGGGCCTGACCCCAACTTCAAGAGCAACTTCGACCTGGCCGAGGATGC
CAAAGTGCAGCTGAGCAAGGACACCTACGACGACGACCTGGACAACCTGCTGGCC
CAGATCGGCGACCAAGTACGCCGACCTGTTTCTGGCCGCCAAGAACCTGTCCGACG
CCATCCTGCTGAGCGACATCCTGAGAGTGAACACCGAGATCACCAAGGCCCCCT
GAGCGCCTCTATGATCAAGAGATACGACGAGCACACCAGGACCTGACCCCTGCTG
AAAGCTCTCGTGCGGCAGCAGCTGCCTGAGAAGTACAAAGAGATTTTCTTCGACC
AGAGCAAGAACGGCTACGCCGGCTACATCGATGGCGGAGCCAGCCAGGAAGAGT
TCTACAAGTTCATCAAGCCCATCCTGGAAAAGATGGACGGCACCGAGGAAGTCT
CGTGAAGCTGAACAGAGAGGACCTGCTGCGGAAGCAGCGGACCTTCGACAACGG
CAGCATCCCCACCAGATCCACCTGGGAGAGCTGCACGCCATTCTGCGGGCGGCA
GGAAGATTTTTACCCATTCTGAAGGACAACCGGGAAAAGATCGAGAAGATCCTGA
CCTTCCGCATCCCCTACTACGTGGGCCCTCTGGCCAGGGGAAACAGCAGATTCCG
CTGGATGACCAGAAAGAGCGAGGAAACCATCACCCCTGGAACCTCGAGGAAGTG
GTGGACAAGGGCGCCAGCGCCAGAGCTTCATCGAGCGGATGACCAACTTCGAT
AAGAACCTGCCAACGAGAAGGTGCTGCCCAAGCACAGCCTGCTGTACGAGTACT
TCACCGTGTACAACGAGCTGACCAAAGTGAAATACGTGACCGAGGGGAATGAGAAA
GCCCGCCTTCTGAGCGGCGAGCAGAAAAAAGCCATCGTGGACCTGCTGTTCAAG
ACCAACCGGAAAGTGACCGTGAAGCAGCTGAAAGAGGACTACTTCAAGAAAATCG
AGTGCTTCGACTCCGTGGAAATCTCCGGCGTGGAAGATCGGTTCAACGCCTCCCT
GGGCACATAACCAGATCTGCTGAAAATTATCAAGGACAAGGACTTCTGGACAATG
AGGAAAACGAGGACATTCTGGAAGATATCGTGCTGACCCTGACACTGTTTGAGGA
CAGAGAGATGATCGAGGAACGGCTGAAAACCTATGCCACCTGTTTCGACGACAAA
GTGATGAAGCAGCTGAAGCGGCGGAGATACACCGGCTGGGGCAGGCTGAGCCG
GAAGCTGATCAACGGCATCCGGGACAAGCAGTCCGGCAAGACAATCCTGGATTTC
CTGAAGTCCGACGGCTTCGCCAACAGAACTTCATGCAGCTGATCCACGACGACA
GCCTGACCTTTAAAGAGGACATCCAGAAAGCCAGGTGTCCGGCCAGGGCGATAG
CCTGCACGAGCACATTGCCAATCTGGCCGGCAGCCCCGCCATTAAGAAGGGCATC
CTGCAGACAGTGAAGGTGGTGGACGAGCTCGTGAAGTGATGGGCCGGCACAAG

CCCGAGAACATCGTGATCGAAATGGCCAGAGAGAACCAGACCACCCAGAAGGGA
CAGAAGAACAGCCGCGAGAGAATGAAGCGGATCGAAGAGGGCATCAAAGAGCTG
GGCAGCCAGATCCTGAAAGAACACCCCGTGGAAAACACCCAGCTGCAGAACGAGA
AGCTGTACCTGTACTACCTGCAGAATGGGCGGGATATGTACGTGGACCAGGAACT
GGACATCAACCGGCTGTCCGACTACGATGTGGACGCTATCGTGCCTCAGAGCTTT
CTGAAGGACGACTCCATCGATAACAAAGTGCTGACTCGGAGCGACAAGAACCGGG
GCAAGAGCGACAACGTGCCCTCCGAAGAGGTCGTGAAGAAGATGAAGAACTACTG
GCGCCAGCTGCTGAATGCCAAGCTGATTACCCAGAGGAAGTTCGACAATCTGACC
AAGGCCGAGAGAGGGCGCCTGAGCGAACTGGATAAGGCCGGCTTCATCAAGAGA
CAGCTGGTGAAACCCGGCAGATCACAAAGCACGTGGCACAGATCCTGGACTCCC
GGATGAACACTAAGTACGACGAGAACGACAACTGATCCGGGAAGTGAAAGTGAT
CACCTGAAGTCCAAGCTGGTGTCCGATTTCCGGAAGGATTTCCAGTTTTACAAG
TGCGCGAGATCAACAACACTACCACCACGCCACGACGCCTACCTGAACGCCGTCGT
GGGAACCGCCCTGATCAAAAAGTACCCTAAGCTGGAAAGCGAGTTCGTGTACGGC
GACTACAAGGTGTACGACGTGCGGAAGATGATCGCCAAGAGCGAGCAGGAAATC
GGCAAGGCTACCGCCAAGTACTTCTTCTACAGCAACATCATGAACTTTTTCAAGAC
CGAGATTACCCTGGCCAACGGCGAGATCCGGAAGCGGCCTCTGATCGAGACAAA
CGGCGAAACAGGCGAGATCGTGTGGGATAAGGGCCGGGACTTTGCCACCGTGCG
GAAAGTGCTGTCTATGCCCAAGTGAATATCGTGAAAAGACCGAGGTGCAGACA
GGCGGCTTCAGCAAAGAGTCTATCCTGCCCAAGAGGAACAGCGACAAGCTGATCG
CCAGAAAGAAGGACTGGGACCCTAAGAAGTACGGCGGCTTCGACAGCCCCACCG
TGGCCTATTCTGTGCTGGTGGTGGCCAAAGTGGAAGGGCAAGTCCAAGAACT
GAAGAGTGTGAAAGAGCTGCTGGGGATCACCATCATGGAAAGAAGCAGCTTCGAG
AAGAATCCCATCGACTTTCTGGAAGCCAAGGGCTACAAAGAAGTGAAAAGGACCT
GATCATCAAGCTGCCTAAGTACTCCCTGTTTCGAGCTGGAAAACGGCCGGAAGAGA
ATGCTGGCCTCTGCCGGCGAACTGCAGAAGGGAAACGAACTGGCCCTGCCCTCC
AAATATGTGAACTTCTGTACCTGGCCAGCCACTATGAGAAGCTGAAGGGCTCCC
CCGAGGATAATGAGCAGAAACAGCTGTTTGTGGAACAGCACAAACACTACCTGGA
CGAGATCATCGAGCAGATCAGCGAGTTCCTCCAAGAGAGTGATCCTGGCCGACGCT
AATCTGGACAAGGTGCTGAGCGCCTACAACAAGCACAGAGACAAGCCTATCAGAG
AGCAGGCCGAGAATATCATCCACCTGTTTACCCTGACCAATCTGGGAGCCCCTGC
CGCCTTCAAGTACTTTGACACCACCATCGACCGGAAGAGGTACACCAGCACCAAA
GAGGTGCTGGACGCCACCCTGATCCACCAGAGCATCACCGGCCTGTACGAGACA
CGGATCGACCTGTCTCAGCTGGGAGGCGACGCC

TATCCCTATGACGTGCCCGATT
ATGCCAGCCTGGGCAGCGGCTCCCCAAGAAAAACGCAAGGTGGAAGATCCTAA
GAAAAAGCGGAAAGTGGAAGATGCTCCAAAGAAGAAGAGAAAGGTC

GACGGCATT
GGTAGTGGGAGCAACGGCAGCAGCGGATCCAACGGTCCGACTGACGCCGCG
GAA
GAAGAAGTTCGAGCAAGAATTATCATCTTGAGAACGAAGTGGCTCGTCTTAAGAA
AGGTTCTGGCAGTGGAGGTTCTGGCTCCGGAGGTTCCGGCGGGGAAGAAGTCT
TTCAAAGAATTACCACCTGAAAATGAGGTAGCTAGACTGAAAAGGGGAGCGGA
AGTGGGGGCTCCGGGTCGGGCGGCTCTGGGGGAGAGGAGTTGCTGAGCAAAAAT
TATCATTGGAGAACGAAGTAGCACGACTAAAGAAAGGGTCCGGATCGGGTGGTT
CAGGATCTGGAGGTTCCGGTGGGGAGGAGTTACTCTGAAAAATTATCATCTCGA
AAACGAAGTGGCTCGGCTAAAAAGGGCAGTGGTTCTGGAGGATCTGGGTCCGG
GGGATCCGGGGGTGAAGAGCTATTATCTAAAACTACCACCTCGAAAATGAGGTG
GCACGCTTAAAAAGGGAAAGTGGCAGTGGTGGGTCGGGATCTGGCGGGTCCGGT

GGAGAAGAGCTACTATCCAAGAATTATCATCTTGAGAACGAGGTAGCGCGTTTGA
GAAGGGTCCGGCTCAGGAGGATCTGGGTCAGGGGGCTCAGGAGGGGAGGAACT
GCTCTCGAAGAACTATCATCTTGAAAATGAGGTCGCTCGATTA AAAAAGGGATCGG
GCAGTGGTGGTCCGGCTCCGGTGGTTCGGGGGGCGAGGAACTACTTTCAAAGA
ATTACCACCTCGAAAACGAAGTAGCTCGATTAAGAAAGGTTCAAGGTCGGGTGG
CTCAGGTTCCGGAGGATCCGGCGGTGAAGAATTACTGAGTAAAATTATCATCTGG
AAAATGAGGTAGCGAGACTAAAAAGGGGAGTGGTTCGGCGGTTCCGGGATCTGG
CGGGTCGGGAGGGGAGGAATTGCTATCGAAAATTATCATCTTGAGAACGAAGTT
GCTAGGCTCAAAAAGGGCTCAGGCTCAGGCGGGTCCGGGTCAGGGGGCTCAGGT
GGCTAACCCGGGGGCGCGCCATGATAACTAGAGTCCTGCTTTAATGAGATATGCG
AGACGCCTATGATCGCATGATATTTGCTTTCAATTCTGTTGTGCACGTTGTA AAAA
CCTGAGCATGTGTAGCTCAGATCCTTACCGCCGGTTTCGGTTCATTCTAATGAATA
TATCACCCGTTACTATCGTATTTTTATGAATAATATTCTCCGTTCAATTTACTGATTG
TACCCTACTACTTATATGTACAATATTA AAAATGAAAACAATATATTGTGCTGAATAGG
TTTATAGCGACATCTATGATAGAGCGCCACAATAACAAACAATTGCGTTTTATTATT
ACAAATCCAATTTTAAAAAAGCGGCAGAACCGGTCAAACCTAAAAGACTGATTAC
ATAAATCTTATTCAAATTTCAAAGTGCCCCAGGGGCTAGTATCTACGACACACCG
AGCGGCGAACTAATAACGCTCACTGAAGGGA ACTCCGGTTCCCCGCCGGCGCGC
ATGGGTGAGATTCTTGAAGTTGAGTATTGGCCGTCCGCTCTACCGAAAGTTACGG
GCACCATTCAACCCGGTCCAGCACGGCGGGCGGTAACCGACTTGCTGCCCCGA
GAATTATGCAGCATTTTTTTTGGTGTATGTGGGCCCCAAATGAAGTGCAGGTCAAAC
CTTGACAGTGACGACAAATCGTTGGGCGGGTCCAGGGCGAATTTTGCGACAACAT
GTCGAGGCTCAGCAGGACCGGCATGCAAGCTAGCTTACTAGTGATATTCTATAGT
GTCACCTAAATCTGCGGC

SunTagCACTA1g2-22aa-TET1cd

gRNA CACTA1g2

U6

NOS term

TET1cd

2xNLS

Linker

1xHA

sfGFP

scFV

UBQ10

Insulator

Omega RBC

dCAS9

3xNLS

GCN4 10x 22aa

OCS term

AAAAAAGCACCGACTCGGTGCCACTTTTTCAAGTTGATAACGGACTAGCCTTATTT
TAACTTGCTATTTCTAGCTCTAAAACCTACTGCTATCAATGAGGACCAATCACTACT
TCGACTCTAGCTGTATATAAACTCAGCTTCGTTTTCTTATCTAAGCGATGTGGGACT
TTTGAAGATTGTTTTCAACTAAATGGGCCTATATAAGAAATACTATTGTTCTTTCCC
ATATAAATGGGCCTGCTTCTTCTTTTCAGATTCCCAGGGGCCTTTTGAAGATTATC
TTCATATCTTAAGAATGAAGATGTTTTATTCAATCAAATTCTTGAAGGTTTCGATGCCT
AATCATTCTAATCCTGGGACAACTATGAAACAAGATACAAAAACTCCGAATGGAAA
GTTAAAAAGAAGAAAACGAAAGCTACGGTTCAAGAAAATGTAAGCTGATAAACAAA
AAAAAACTGTATGAACGAAGAAGAAGAAAAAAGCTAAGAAGAAATGATGTATTGT
GCGGAAGGCAAGTCGAGTTTCCGTTGTTCAACGAAAGCTTAAACGTAACATAGATG
ACACCGCGCGCGATAATTTATCCTAGTTTGC GCGCTATATTTTGT TTTCTATCGCGT
ATTAATGTATAATTGCGGGACTCTAATCATAAAAACCCATCTCATAAATAACGTCA
TGCATTACATGTTAATTATTACATGCTTAACGTAATTCAACAGAAATTATATGATAAT
CATCGCAAGACCGGCAACAGGATTCAATCTTAAGAACTTTATTGCCAAATGTTTGA
ACGATCGGGGAAATTCGAGCTCAAACCTACGGCCATGGCGTAGGCGGCCTTTTCC
GTTGTGATCTTCGCGGTCTCCTCCTTGTTTTGGACTAGTACCACCACCGCTACCA
CCACCTTCGGTTACCGTGAAGGTTTTGGTAGCGTCGTCGTAGGTCCATTCACCGTC
AACACCGTTGTCGTTAGCGTACTGTTTGAAAACCTTTTTCCGCGGTAGCAGCGTCAA
CAGCTTCGGTGGTGGTTTACCTTTACGGGTTTTACCGTTCAGGATAAGCTTGTAC
TCTTCGGTCCGAGATCCTCCTCCCGTACGTCAGACCCAATGGTTATAGGGCCCCG
CAACGTGTGTGAGAGCATAAGGGGACACGGTGACAACATTGTCATGGGTTAATGT
TAATGCTTTATGAGAAGGAATTTGGTTCAATTCATTTACTTCAGAGGACTGTTCTGG
ACCTTCATTAGCTGCCTGGTCTTTTTGCTCTGAGGCCTTCATTTTCTTATTCTTAGCT
TCTTTAGCCTCAAACCTTAATCTTGTTAGTTCAAACCATGTTGGGGCTTATTTAGGT
TTTTGTGCTGGTAAAAGACAAGGGAGAGGGCGGGTTGGATGATTACGGTTGGGGTG
CTCAACAGGAGTGGTAGCGTGCAGCTCTCGCCGGGCACACTCAATCAAACCGAG
CCGTGAGCAGGTGCGATGGCCACCCACCAATATTTGCATCCAAAAGATGTGCT
CACTGTCTGACCAATACTCATCAATGTGGGGCAATTTCTCCTCAGCAGGTGACAGG
GGGTCATCAGATAGGGGTTCTGCTGATGGAGGCTCATCTGCTTCAGAATGCTGCT
CATCTTCTTCCATTGGAGAAGAGGCAAGGTCTTGAGGAGAGGTGAGGAAGGAGGG
CTGGTGGTTTGGCTGATGAGGCGTTAGCGGCTCAGTCACACCAGTGGAAGGCTCA
GAATTAATGAGGGGCTCCATCACAGGAGCAGACAGGGTGGGGAGAGGAGCCACT
TCGCCAAGCTGTGAAATGCCAGGGCCATCAGCAGCTGCAGCATTGGCACCCTGA
GTCTTCCCGAAGGCATCGTACAGTGGGGAGTGCTGCTTCTTTCTGAAAACCCGCAT
GAGGCTGTTGCGTCATTCTTCAGTGGAGCTGGTGTGGCTGAAGCAGTCTTCGGGG
ACCAGGAGAAGCCTGGAGATGCCTCTTTCACTGGGTGAGGAGCGGATGGCATCA
GCGAATAAGTTTTAGTGTTGTCTGAACTTTTTAAGATAAAATGGGGTTCGGTTTAC
TTTTACTTCAGGTTGCACGGTCTCAGTGTTACTCCCTAAGGTTGGCAGTGACGAA
GGCTTACTGTTGTTTGTGTTGTTGAGTTATTCTTCCGCTTGATTCCGGGGAATAGGT
TTCTTTTCCACTGCCCTTATCTTATGTGCAAGAACCTCTGTCATCATCGCAGCCCTC
TTCTTTCCAGAACGGGGAACAGGCTGAGTGAAACACGTTCTTTTTTTGCGGGCGGG
GTGCCAGGACCTCGATGGCCCCAGATTTGATCTTGGCTTCCATTCCCTTCTTGGAG
CCAAACTCATCTGTGTCTGAAAGCTTATAAAGAGGTAGCACATGGAGCTGCTCATC
TTGAGGAATAACACCCAAAGAGCGGTTATCTTCTCGAGTTAAGGTACAAACCACAG
TGCTTCCATTATTCATGTTGTGAATGTCCCTGTGGGGATGAGCACAGAAGTCCAGG
CAAGCAGTGACCCAGAGAAGGGTCGACCTTCTTGCTGCCAAGCCGACATTCTC

GGGCAACATTTTCATATTCCACCTGATTTTGGTAAGCTACTGGAGCATACTGCTTAT
AAATTGGAGCTAATCGTGTAGCCAAACTCTGTAAGTTATCTTCAAGGTTTTTTTCAT
GTAAGGGAGAGCTTGATCAATTCTAAATCTTCTGGGGCTTGGGCTTCTACCAAAC
TTACAGCCATTAAGTACATACTCCATGAACAGCCAAAAGAGAATGAAGCTCCACA
AGTCTCTGGATCAATTCCTTGACATGTACAGGTACGATTTTCATTGAGGGTGCATCT
TCTGTCCGTAGGGTGCCATTGTATGACTTTAGATTCTCTGTGAGCTCTGTGTATA
GCCGGTCCGCCATTGGAAGAGGGATGCCATCCCACACCATGATGAGCACCACCAT
CACAGCAGTTGGACAGTGGTGGCCTGTACGCTGCCGGACCAAACAAGAACTTTT
TCTTCATCACTGCTTCTTCTTAAACCCACTTAGCAATTGGACACCCATGAGAGCTT
TTCCCTTCTTACCGGTGTACACTACTATTTCTATCCTTATTGCGTTTCCTTTTTGAC
CATACCTATTCTCCATGATTTCCCTGACAGCAGCAACACTTGGTCCTGCCCAAGG
TGTGTATAATATGGGCCTTTGTCTTTTTGTATAACTCGATCAAGACAGCTGCAGGTG
GGCAGCCCGGATCCGCCACCGCCACTTTCCGCTTTTTCTTAGGAGCTTCCACCTT
GCGTTTTTCTTGGGAGCGCCGCTGCCAGGCTGGCATAATCGGGCACGTCATAG
GGATACGTACGACCGGTCCGACCTCCACC TTGTAGAGCTCATCCATGCCATGTGT
AATCCCAGCAGCAGTTACAAACTCAAGAAGGACCATGTGGTCACGCTTTTCGTTGG
GATCTTTCGAAAGGACAGATTGTGTGACAGGTAATGGTTGTCTGGTAAAAGGACA
GGGCCATCGCCAATTGGAGTATTTGTTGATAATGGTCTGCTAGTTGAACGGAACC
ATCTTCAACGTTGTGGCGAATTTGAAGTTAGCTTTGATTCCATTCTTTGTTGTCT
GCCGTGATGTATACATTGTGTGAGTTAAAGTTGACTCGAGTTTGTGTCCAAGAAT
GTTCCATCTTCTTAAATCAATACCCTTAACTCGATACGATTAACAAGGGTATCA
CCTTCAAACCTTGACTTCAGCACGCGTCTGTAGGTCCCGTCATCTTGAAAGATATA
GTGCGTTCCTGTACATAACCTTCGGGCATGGCACTCTTGAAAAAGTCATGCCGTTT
CATGTGATCCGGATAACGGGAAAAGCATTGAACACCATAGGTCAGAGTAGTGACA
AGTGTGGCCACGGAACAGGTAGTTTCCAGTAGTGCAAATAAATTAAGGGTGAG
TTTTCCGTTTGTAGCATCACCTCACCTCTCCACGGACAGAAAATTTGTGCCATT
AACATACCATCTAATTCAACAAGAATTGGGACAACCTCCAGTGAAAAGTTCTTCTCC
TTTGTACCGCTTCCACCTCCACCTGGATCCAA GCTTCCGCCGCCTCCTGAACCA
CACCGCCACTACTCCTCCCCAGAACCTCCGCCTCACCAGCGTAATCTGGAAC
ATCGTATGGGTAGCTGCTCACGGTCACCAGGGTGCCCTGGCCCCAGTAGTCGAAC
AGGCCGGTCACGCAGTAGTACAGGGCGGTGTCGTGCTGCGCACCTTGCTCATCT
GCAGGTACACGGTGTCTTGCCGTTGCTTGTGCTGATGATGAAGCGGTCCCTCAG
GGCGCTGTTGTAGTCGGTGTGCGGTGCGCCAGATCACGCCGATCCACTCCAGG
CCGCGGCCGGGGCCTGGCGCACCCAGTTCACGCCGTAGTCGGTCAGGCTGAA
GCCGCTCACGGCGCAGCTCAGCTTACGGCTGCCGCCGGGCTGCACCAGGCCGCC
GCCGCTCTCCAGCAGCTTACCTCGCTGCCGCCGCCGCTGCTGCCGCCGCCGCC
GCTGCCGCCGCCGCCGCTGCCGCCGCCGCCGCGCTTACGCTCCACCTTGGTGCC
CTGGCCGAACACCCAGTGGTTGCTGTACCACAGGGCGCAGAAGTAGGTGGCGAA
GTCCTCGGGCTGCAGGCTGCTGATGGTCAGGGTGGCCTTGTGCGCCGATCAGGCT
GCCGCTGAAGCGGCTGGGCACGCCGGGGGCGCGGTTGTTGGTGCCGCCGATCA
GGCCCTTGAACAGCTTGCCGGGCTTCTCCTGCACCCAGCTGGCGTAGTTGCTGGT
GGTCACGGCGCCGGTGTGCTGCGGCAGGTGATGGTCACGCGGTCCGCCACGCT
GGCGCTCAGGCTGCTGGGGCTCTGGGTCATCACGATGTCGGGGCCCATAAACCC
TAGGTGTTAATCAGAAAACTCAGATTAATCGACAAATTCGATCGCACAAACTAGAA
ACTAACACCAGATCTAGATAGAAATCACAAATCGAAGAGTAATTATTCGACAAAAC
CAAATTATTTGAACAAATCGGATGATATCTATGAAACCCTAATCGAGAATTAAGATG

ATATCTAACGATCAAACCCAGAAAATCGTCTTCGATCTAAGATTAACAGAATCTAAA
CCAAAGAACATATACGAAATTGGGATCGAACGAAAACAAAATCGAAGATTTTGAGA
GAATAAGGAACACAGAAATTTACCTTGATCACGGTAGAGAGAATTGAGAGAAAGTT
TTTAAGATTTTGAGAAATTGAAATCTGAATTGTGAAGAAGAAGAGCTCTTTGGGTAT
TGTTTTATAGAAGAAGAAGAAAAGACGAGGACGACTAGGTCACGAGAAAGCTA
AGGCGGTGAAGCAATAGCTAATAATAAAATGACACGTGTATTGAGCGTTGTTTACA
CGCAAAGTTGTTTTGGCTAATTGCCTTATTTTTAGGTTGAGGAAAAGTATTTGTGC
TTTGAGTTGATAAACACGACTCGTGTGTGCCGGCTGCAACCACTTTGACGCCGTTT
ATTACTGACTCGTCGACAACCACAATTTCTAACGGTCGTCATAAGATCCAGCCGTT
GAGATTTAACGATCGTTACGATTTATATTTTTTAGCATTATCGTTTTATTTTTAAAT
ATACGGTGGAGCTGAAAATTGGCAATAATTGAACCGTGGGTCCCCTGCATTGAAG
CGTATTTTCGTATTTCTAGAATTCTTCGTGCTTTATTTCTTTTCCTTTTTGTTTTTT
GCCATTTATCTAATGCAAGTGGGCTTATAAAATCAGTGAATTTCTTGAAAAGTAAC
TTCTTTATCGTATAACATATTGTGAAATTATCCATTTCTTTAATTTTTTAGTGTTATT
GGATATTTTTGTATGATTATTGATTGCATAGGATAATGACTTTTGATCAAGTTGGT
GAACAAGTCTCGTTAAAAAAGGCAAGTGGTTGGTGAICTGATTTATTCTTGTTATT
TAATTCATATATCAATGGATCTTATTTGGGGCCTGGTCCATATTAACACTCGTGTT
CAGTCCAATGACCAATAATTTTTTCATTAATAACAATGTAACAAGAATGATACACA
AAACATTTCTTGAATAAGTTCGCTATGAAGAAGGGAAGTATCCGGTCCCTAGATCAT
CAGTTCATACAAACCTCCATAGAGTTCAACATCTTAAACAAGAATATCCTGATCTGA
AGAATGTGGAGGCTTTAGTCCCTTGATACTTGGGAGGCTGTGGAAGAACAGAAA
CGAGCTGGTGCTTAAAGGGAGGGAATTTGGAACCAATGAGGTATTAGTAAGGACA
CAAGAAGATGCAGATGAGTGGATTAGAAGGAAAGAGGCTCAGAATGTAAGGAAAG
CACCAACCACAACACCGTCCGGACAGACGAGAAACATGGGAAGCTCCACCACAAT
CTTGGGTTAAGTGCAACTTTGATGGGGCATGGCCAACAGAAGGATTAATGTGG
CTTAGGGTGGGTGCTTCGCGATCATAACAGGGAAGGTGTTATGGTTAGGTGCAAGA
GCTGTGGTAAAAGTAAGAAGCGTGCTGGAAGTAGAAGTGGAGGCTCTTAGATGGG
CTGTGCTGTCATTATCCCGATTCAATTATAGGAAGATCATTTTTGAGGTGGATTCTC
AGCAACTTGTGTCTTTGGTTACATGAAAGTTATGCTTGTCAAGTCTCAATCCAATTA
TCCAAGACATAAAGTATCTACTTAGCAAGTTTGAGGATTTTATGCTTGTGCATACAA
GCCGAGAAGGAAATGGAGTGGCAGATAGAATAGCTAAGGAATCTCTTTCTTTGAG
AATTATGATCTAAAGTTGTATTCTATTGTACCAATTTGGGTTAAAAGCTCTGTTGAGC
TAGACTCATATGCATCCTAGGAAACAAAGTTGTAATGAGTTGCTGGCCTCTCTTGGG
ATTGTTCAATCAAAGTAGCTGTCCCTACACACCACAACAGAATGGTGTGTTGGAGAG
AAAGCACAGACACATCCTTGAGATGGCAAGGGCACTTAAGTTTCAGAGTGGTGTAC
CTACCAGGTTTTGGGGAGACTGTGTCAAGACTGTTGTATACCTGATCAATAGACTC
CCTACTCCAATCTTACAAGGCAAATGTCCATATGAACTACTCTATCAGAAACATGCC
AAGCTTGATCACTTGAGAGTGTGTTGGGTGTCTTGCTTTTGCAGCAACACTGCCCAA
AGGTGACAAACTTGCACCTAGAGCCAAGCGAACCATCTTCATTGGTTATTCTGAGA
CTCAAAGGGTTACAGGTTGTATGACTTGGATAATAAGGTGATCATAGTGAGCAGG
GATGTAGTTTTTACAGAGAGTTTCAGTTCCCTTTCAAAGAGTCCATCTCCCATGAACCT
GATATGTTCACTCGAGCAGGTTCACTTAGCTCTGAAGATACAGCTTTGCAGCTAGT
GTATAATGATATTTTTCTTCCAGCTTTCATACTGATGATGATGATACTCCAGTTCTT
ATTCTGACATTGTAGAGGCCAATGAGGATATCACTTTGGGGACTCATTCTACCCA
AAATCATATCACTTCAGCTGATGCTGCACCTTCAGGCCACCTGCATGCTCCTGCAG
AGTCAGTTGAGTCAGCTGAGCCTGACCTAGCAAATGCTGAATTTGAGCACCATACT

GCTGTAGCTGATCCCTCTCTAGTTCCAGCAAACCTGCACACTAGACCTAAACGCAA
TGCAGGTCCTCCCATCTGGCTCAAGGACTTTGTGACACTGAACAAAGGCTCTAGG
GATGTTCCATACCCTATAGCCAACCTATGTTTCCTATGATCACTTGCCTGTTCACTAT
CAAGCTTATTTGAGTGCTTTCTCCACTTATACTGAACCTAAATCCTTCAAAGAAGCA
GCTCAAGATGAGAAATGGATGGAGGCCATGTCCCTTGAGATACAGGCTCTTGAGG
ATAATAACACCTGGGAGATTGTCCCTTTACCCCCTGGTAAACAGCCTATAGGGTCC
AAATGGGTGTACAAAATTAATAACAAAGCTAATGGTGAAGTTGACAGGTTTAAGGC
AAGGCTAGTGGCCAAGGGATACACTCAGCAAGAAGGCCTTGACTACCATGAAACT
TTTTCTCCAGTGGCCAAAATGGTCACTGTAAAAGCTGTCATATCTGTTGCTGCTTCC
AAGGGCTGGTTCCTTTTCCAGATGGATGTCAACAATGCTTTTCTACAAGGTGACCT
CATGGAAGAAGTTTATATGTCTCTGCCTCAGGGTTTTACAGCCAAGGGGAGACCA
AAGTGTGCAGGCTGTTGAATCCCTCTATGGTTTAAAGCAAGCATCAAGGCAGTGGA
ACATCAAGCTTACCACTGTCCTTATGCAGGCTGGTTTTATGCAAAGTGCTTATGATC
ACTCCTTGTTTACCAAAGAGAGGGGACTGACCTTGTGATAATCCTGATTTATGTG
GATGATCTGTTAATAACAGGCAGCAGCAATGTTTTGATTCAGAAGCAAAGGCAAC
CCTGCATCAGCATTTCAGATGAAAGATTTGGGAGAACTAAAATACTTCTTAGGCAT
TGAGGTGCTGAGATCAGAAAAGGGAATCCTACTGAACCAGAGGAAGTATGCACTG
GAACTGATATCAGGTGTTGGTCTGGGAGGCTGCAGACCAGTGTCAACCCCAATGG
AACAGAACCAAAGGCTGACTACTGTAGAATATGACAAGCACTTAGGAAAGACTGAT
GATGCAGAGTTAGAGGATGTGGGTTCTATCAGAGACTGGTGGGAAAGCTTCTCT
ACTTGACAATCACAAGGCCAGATATCAGCTTTGCAGTGCAGGTGCTGAGTCAATTC
ATGCAGCAACCCAAACAGTCACACCTGGAAGCAGCATTGAGGGTTGTGAAGTACA
TAAAAGGTTCTCCAGGTGTTAGGAAAGCGGCCGCATGCATATGAGTCTAGCTCAACA
GAGCTTTTAAACCCAAATTGGTACAATAGAATACAACCTTTAGATCATAATTCTCAAAA
GAAAGAGATTCTTAGCTATTCTATCTGCCACTCCATTTCTTCTCGGCTTGTATGC
ACAAGCATAAAAATCCTCAAACCTTGCTAAGTAGATACTTTATGTCTTGGATAAATTGGA
TTGAGACTTGACAAGCATAACTTTTCATGTAACCAAAGACACAAGTTGCTGAGAATC
CACCTCAAAAATGATCTTCTTATAATTGAATCGGGATAATGACAGCACAGCCCATCT
AAGAGCCTCCACTTCTACTTCCAGCACGCTTCTTACTTTTACCACAGCTCTTGCACC
TAACCATAACACCTTCCCTGTATGATCGCGAAGCACCCACCCTAAGCCACATTTTA
ATCCTTCTGTTGGCCATGCCCCATCAAAGTTGCACTTAACCCAAGATTGTGGTGGAA
GCTTCCCATGTTTCTCGTCTGTCCCACGGTGTGTTGGTGGTGCCTTCCCTTACAT
TCTGAGCCTCTTTCTTCTAATCCACTCATCTGCATCTTCTTGTGTCCTTACTAATAC
CTCATTGGTTCCAAATTCCCTCCCTTTAAGCACCAGCTCGTTTCTGTTCTTCCACAG
CCTCCCAAGTATCCAAGGGACTAAAGCCTCCACATTCTTCAGATCAGGATATTCTT
GTTAAGATGTTGAACTCTATGGAGGTTTGTATGAACTGATGATCTAGGACCGGAT
AAGTTCCTTCTTCATAGCGAACTTATTCAAAGAATGTTTTGTGTATCATTCTTGTTA
CATTGTTAATAATGAAAAAATATTATTGGTCATTGGACTGAACACGAGTGTTAAATAT
GGACCAGGCCCAAATAAGATCCATTGATATATGAATTAATAACAAGAATAAATCG
AGTCACCAAACCACTTGCCTTTTTAAACGAGACTTGTTCCACCAACTTGATACAAAAG
TCATTATCCTATGCAAATCAATAATCATACAAAATATCCAATAACACTAAAAAATTA
AAAGAAATGGATAATTTACAATATGTTATACGATAAAGAAGTTACTTTTCCAAGAAA
TTCACTGATTTTATAAGCCCACTTGCATTAGATAAATGGCAAAAAAAAAACAAAAAGG
AAAAGAAATAAAGCACGAAGAATTCTAGAAAATACGAAATACGCTTCAATGCAGTG
GGACCCACGGTTCAATTATTGCCAATTTTCAGCTCCACCGTATATTTAAAAAATAAA
ACGATAATGCTAAAAAAATATAAATCGTAACGATCGTTAAATCTCAACGGCTGGATC

TTATGACGACCGTTAGAAATTGTGGTTGTCGACGAGTCAGTAATAAACGGCGTCAA
AGTGGTTGCAGCCGGCACACACGAGTCGTGTTTATCAACTCAAAGCACAAATACTT
TTCTCAACCTAAAAATAAGGCAATTAGCCAAAAACAACCTTTGCGTGTAACAACGC
TCAATACACGTGTCATTTTATTATTAGCTATTGCTTACCAGCCTTAGCTTTCTCGTGA
CCTAGTCGTCCCTCGTCTTTTCTTCTTCTTCTATAAAAACAATACCCAAAGAGCTCT
TCTTCTCACAATTCAGATTTCAATTTCTCAAATCTTAAAAACTTTCTCTCAATTCTC
TCTACCGTGATCAAGGTAATTTCTGTGTTCCCTTATTCTCTCAAATCTTCGATTTTG
TTTTCGTTCGATCCCAATTCGTATATGTTCTTTGGTTTAGATTCTGTTAATCTTAGA
TCGAAGACGATTTTCTGGGTTTGATCGTTAGATATCATCTTAATTCTCGATTAGGGT
TTCATAGATATCATCCGATTTGTTCAAATAATTTGAGTTTTGTGAATAAATACTCTT
CGATTTGTGATTTCTATCTAGATCTGGTGTAGTTTCTAGTTTGTGCGATCGAATTT
GTCGATTAATCTGAGTTTTTCTGATTAACAGGGATCATCAACAAGTTTGTACAAAA
AGCAGGCTCTTTAAAGTATTTTTACAACAATTACCAACAACAACAACAACAACA
CATTACAATTACTATTTACAATTACAAAAAAAGTTAACATGGACAAGAAGTACAGCA
TCGGCCTGGCCATCGGCACCAACTCTGTGGGCTGGGCCGTGATCACCAGCAGT
ACAAGGTGCCAGCAAGAAATTCAAGGTGCTGGGCAACACCGACCGGCACAGCAT
CAAGAAGAACCTGATCGGCGCCCTGCTGTTTCGACAGCGGAGAAACAGCCGAGGC
CACCCGGCTGAAGAGAACC GCCAGAAGAAGATACACCAGACGGAAGAACC GGAT
CTGCTATCTGCAAGAGATCTTCAGCAACGAGATGGCCAAGGTGGACGACAGCTTC
TTCCACAGACTGGAAGAGTCCTTCTGTTGGAAGAGGATAAGAAGCACGAGCGGC
ACCCCATCTTCGGCAACATCGTGGACGAGGTGGCCTACCACGAGAAGTACCCAC
CATCTACCACCTGAGAAAGAACTGGTGGACAGCACCGACAAGGCCGACCTGCGG
CTGATCTATCTGGCCCTGGCCACATGATCAAGTTCCGGGGCCACTTCTGATCG
AGGGCGACCTGAACCCCGACAACAGCGACGTGGACAAGCTGTTTCATCCAGCTGGT
GCAGACCTACAACCAGCTGTTTCGAGGAAAACCCCATCAACGCCAGCGGCGTGGAC
GCCAAGGCCATCCTGTCTGCCAGACTGAGCAAGAGCAGACGGCTGGAAAATCTGA
TCGCCAGCTGCCCGGCGAGAAGAAGAATGGCCTGTTTCGGCAACCTGATTGCCCT
GAGCCTGGGCCTGACCCCAACTTCAAGAGCAACTTCGACCTGGCCGAGGATGC
CAAACCTGCAGCTGAGCAAGGACACCTACGACGACGACCTGGACAACCTGCTGGCC
CAGATCGGCGACCAGTACGCCGACCTGTTTCTGGCCGCCAAGAACCTGTCCGACG
CCATCCTGCTGAGCGACATCCTGAGAGTGAACACCGAGATCACCAAGGCCCCCT
GAGCGCCTCTATGATCAAGAGATACGACGAGCACACCAGGACCTGACCTGCTG
AAAGCTCTCGTGCGGCAGCAGCTGCCTGAGAAGTACAAAGAGATTTTCTTCGACC
AGAGCAAGAACGGCTACGCCGGCTACATCGATGGCGGAGCCAGCCAGGAAGAGT
TCTACAAGTTCATCAAGCCATCCTGGAAAAGATGGACGGCACCGAGGAAGTACTGCT
CGTGAAGCTGAACAGAGAGGACCTGCTGCGGAAGCAGCGGACCTTCGACAACGG
CAGCATCCCCACCAGATCCACCTGGGAGAGCTGCACGCCATTCTGCGGCGGCA
GGAAGATTTTACCATTCTGAAGGACAACCGGGAAAAGATCGAGAAGATCCTGA
CCTTCCGCATCCCCTACTACGTGGGCCCTCTGGCCAGGGGAAACAGCAGATTCGC
CTGGATGACCAGAAAGAGCGAGGAAACCATCACCCCTGGAACCTTCGAGGAAGTG
GTGGACAAGGGCGCCAGCGCCAGAGCTTCATCGAGCGGATGACCAACTTCGAT
AAGAACCTGCCAACGAGAAGGTGCTGCCAACGACAGCCTGCTGTACGAGTACT
TCACCGTGTAACGAGCTGACCAAAGTGAATACGTGACCGAGGGAATGAGAAA
GCCCGCCTTCTGAGCGGCGAGCAGAAAAAGCCATCGTGGACCTGCTGTTCAAG
ACCAACCGGAAAGTGACCGTGAAGCAGCTGAAAGAGGACTACTTCAAGAAAATCG
AGTGCTTCGACTCCGTGAAATCTCCGGCGTGGAAAGATCGGTTCAACGCCTCCCT

GGGCACATACCACGATCTGCTGAAAATTATCAAGGACAAGGACTTCCTGGACAATG
AGGAAAACGAGGACATTCTGGAAGATATCGTGCTGACCCTGACACTGTTTGAGGA
CAGAGAGATGATCGAGGAACGGCTGAAAACCTATGCCACCTGTTTCGACGACAAA
GTGATGAAGCAGCTGAAGCGGCGGAGATACACCGGCTGGGGCAGGCTGAGCCG
GAAGCTGATCAACGGCATCCGGGACAAGCAGTCCGGCAAGACAATCCTGGATTTC
CTGAAGTCCGACGGCTTCGCCAACAGAACTTCATGCAGCTGATCCACGACGACA
GCCTGACCTTTAAAGAGGACATCCAGAAAGCCCAGGTGTCCGGCCAGGGCGATAG
CCTGCACGAGCACATTGCCAATCTGGCCGGCAGCCCCGCCATTAAGAAGGGCATC
CTGCAGACAGTGAAGGTGGTGGACGAGCTCGTGAAAGTGATGGGCCGGCACAAG
CCCGAGAACATCGTGATCGAAATGGCCAGAGAGAACCAGACCACCCAGAAGGGA
CAGAAGAACAGCCGCGAGAGAATGAAGCGGATCGAAGAGGGCATCAAAGAGCTG
GGCAGCCAGATCCTGAAAGAACACCCCGTGGAAAACACCCAGCTGCAGAACGAGA
AGCTGTACCTGTACTACCTGCAGAATGGGCGGGATATGTACGTGGACCAGGA
GGACATCAACCGGCTGTCCGACTACGATGTGGACGCTATCGTGCCTCAGAGCTTT
CTGAAGGACGACTCCATCGATAACAAAGTGCTGACTCGGAGCGACAAGAACCGGG
GCAAGAGCGACAACGTGCCCTCCGAAGAGTCTGTGAAGAAGATGAAGAACTACTG
GCGCCAGCTGCTGAATGCCAAGCTGATTACCCAGAGGAAGTTCGACAATCTGACC
AAGGCCGAGAGAGGGCGGCTGAGCGAACTGGATAAGGCCGGCTTCATCAAGAGA
CAGCTGGTGGAAACCCGGCAGATCACAAAGCACGTGGCACAGATCCTGGACTCC
GGATGAACACTAAGTACGACGAGAACGACAACTGATCCGGGAAGTGAAAGTGAT
CACCTGAAGTCCAAGCTGGTGTCCGATTTCCGGAAGGATTTCCAGTTTTACAAG
TGCGCGAGATCAACAACCTACCACGCCCACGACGCCTACCTGAACGCCGTCGT
GGGAACCGCCCTGATCAAAAAGTACCCTAAGCTGGAAAGCGAGTTCGTGTACGGC
GACTACAAGGTGTACGACGTGCGGAAGATGATCGCCAAGAGCGAGCAGGAATC
GGCAAGGCTACCGCCAAGTACTTCTTCTACAGCAACATCATGAACTTTTTCAAGAC
CGAGATTACCCTGGCCAACGGCGAGATCCGGAAGCGGCCTCTGATCGAGACAAA
CGGCGAACAGGGCGAGATCGTGTGGGATAAGGGCCGGGACTTTGCCACCGTGCG
GAAAGTGCTGTCTATGCCCAAGTGAATATCGTGAAAAGACCGAGGTGCAGACA
GGCGGCTTCAGCAAAGAGTCTATCCTGCCCAAGAGGAACAGCGACAAGCTGATCG
CCAGAAAGAAGGACTGGGACCCTAAGAAGTACGGCGGCTTCGACAGCCCCACCG
TGGCCTATTCTGTGCTGGTGGTGGCCAAAGTGGAAAAGGGCAAGTCCAAGAACT
GAAGAGTGTGAAAGAGCTGCTGGGGATCACCATCATGGAAAGAAGCAGCTTCGAG
AGAATCCCATCGACTTTCTGGAAGCCAAGGGCTACAAAGAAGTGA AAAAGGACCT
GATCATCAAGCTGCCTAAGTACTCCCTGTTTCGAGCTGGAAAACGGCCGGAAGAGA
ATGCTGGCCTCTGCCGGCGAACTGCAGAAGGGAAACGAACTGGCCCTGCCCTCC
AAATATGTGAACTTCTGTACCTGGCCAGCCACTATGAGAAGCTGAAGGGCTCCC
CCGAGGATAATGAGCAGAAACAGCTGTTTGTGGAACAGCACAAACACTACCTGGA
CGAGATCATCGAGCAGATCAGCGAGTTCTCCAAGAGAGTGATCCTGGCCGACGCT
AATCTGGACAAGGTGCTGAGCGCCTACAACAAGCACAGAGACAAGCCTATCAGAG
AGCAGGCCGAGAATATCATCCACCTGTTTACCCTGACCAATCTGGGAGCCCCTGC
CGCCTTCAAGTACTTTGACACCACCATCGACCGGAAGAGGTACACCAGCACCAA
GAGGTGCTGGACGCCACCCTGATCCACCAGAGCATCACCGGCCTGTACGAGACA
CGGATCGACCTGTCTCAGCTGGGAGGCGACGCC TATCCCTATGACGTGCCCGATT
ATGCCAGCCTGGGCAGCGGCTCCCCAAGAAAAAACGCAAGGTGGAAGATCCTAA
GAAAAAGCGGAAAGTGGAAGATGCTCCAAAGAAGAAGAGAAAGGTC GACGGCATT
GGTAGTGGGAGCAACGGCAGCAGCGGATCCAACGGTCCGACTGACGCCGCG GAA

GAAGAACTTTT GAGCAAGAATTATCATCTTGAGAACGAAGTGGCTCGTCTTAAGAA
AGGTTCTGGCAGTGGAGGTTCTGGCTCCGATCTGGTGGTTCGGGCTCAGGCGG
GTCCGATCAGGCGAAGAAGTCTTTCAAAGAATTACCACCTGAAAATGAGGTA
GCTAGACTGAAAAAGGGGAGCGGAAGTGGGGGCTCCGGGTCGGGCTCAGGGGG
CTCCGGTTCGGGAGGCTCAGGGTCCGGGGAGGAGTTGCTGAGCAAAAATTATCAT
TTGGAGAACGAAGTAGCACGACTAAAGAAAGGGTCCGGATCGGGTGGTTCAGGAT
CTGGATCCGGAGGATCAGGGTCCGGTGGGTCCGGCTCAGGAGAGGAGTTACTCT
CGAAAATTATCATCTCGAAAACGAAGTGGCTCGGCTAAAAAAGGGCAGTGGTTCT
GGAGGATCTGGGTCCGGGTCAGGCGGGTCTGGATCTGGGGGATCTGGATCTGGT
GAAGAGCTATTATCTAAAAACTACCACCTCGAAAATGAGGTGGCACGCTTAAAAAA
GGGAAGTGGCAGTGGTGGGTCCGGATCTGGCTCTGGTGGCTCAGGCTCCGGGAGG
TTCAGGTTCCGGGGAAGAGCTACTATCCAAGAATTATCATCTTGAGAACGAGGTA
CGCGTTTGAAGAAGGGTTCGGGCTCAGGAGGATCTGGGTCCAGGGTCCAGGGGGT
CCGGGTCAGGCGGGTCCGGGTCAGGCGAGGAACTGCTCTCGAAGAACTATCATC
TTGAAAATGAGGTCGCTCGATTAAAAAAGGGATCGGGCAGTGGTGGGTCCGGCTC
CGGTTCCGGAGGATCGGGATCTGGGGGCTCCGGATCCGGGGAGGAACTACTTTC
AAAGAATTACCACCTCGAAAACGAAGTAGCTCGATTAAAGAAAGGTTCCAGGGTCGG
GTGGCTCAGGTTCCGGATCAGGTGGGTCCAGGCTCCGGTGGTTCAGGTTCCGGGAG
AGAATTACTGAGTAAAAATTATCATCTGGAAAATGAGGTAGCGAGACTAAAAAAG
GGGAGTGGTTCTGGCGGTTCCGGATCTGGCTCTGGGGGCTCTGGGTCCGGGAGGG
TCTGGGTCTGGCGAGGAATTGCTATCGAAAATTATCATCTTGAGAACGAAGTTGC
TAGGCTCAAAAAGGGCTCAGGCTCAGGCGGGTCCGGGTCAGGGTCCGGGAGGTTCC
CGGATCCGGGGGATCAGGCTCAGGGTAA^{CCC}GGGGGCGCGCCATGATAAC^{TAGA}
GTCCTGCTTTAATGAGATATGCGAGACGCCTATGATCGCATGATATTTGCTTTCAAT
TCTGTTGTGCACGTTGTAACCACTGAGCATGTGTAGCTCAGATCCTTACCGCCG
GTTTCGGTTCATTCTAATGAATATATCACCCGTTACTATCGTATTTTTATGAATAATA
TTCTCCGTTCAATTTACTGATTGTACCCTACTACTTATATGTACAATATTAATGAA
AACAAATATATTGTGCTGAATAGGTTTATAGCGACATCTATGATAGAGCGCCACAATA
ACAAACAATTGCGTTTTATTATTACAAATCCAATTTAAAAAAGCGGCAGAACC GG
TCAAACCTAAAAGACTGATTACATAAATCTTATTCAAATTTCAAAGTGCCCCAGGG
GCTAGTATCTACGACACACCGAGCGGCGAATAAACGCTCACTGAAGGGA ACT
CCGGTTCGCCCGCGCGCATGGGTGAGATTCTTGAAGTTGAGTATTGGCCGT
CCGCTCTACCGAAAGTTACGGGCACCATTCAACCCGGTCCAGCACGGCGGCCGG
GTAACCGACTTGCTGCCCGAGAATTATGCAGCATTTTTTTGGTGTATGTGGGCC
CAAATGAAGTGCAGGTCAAACCTTGACAGTGACGACAAATCGTTGGGCGGGTCCA
GGGCGAATTTGCGACAACATGTCGAGGCTCAGCAGGACCGGCATGCAAGCTAGC
TTACTAGTGATATTCTATAGTGTACCTAAATCTGCGGC

SunTagng-22aa

NOS term

TET1cd

2xNLS

Linker

1xHA

sfGFP
scFV
UBQ10
Insulator
Omega RBC
dCAS9
3xNLS
GCN4 10x 22aa
OCS term

CACGGGGTGGTTTGGTTTAAACGTAACATAGATGACACCGCGCGCGATAATTTATC
CTAGTTTGCGCGCTATATTTTGTCTATCGCGTATTAATGTATAATTGCGGGAC
TCTAATCATAAAAACCCATCTCATAAATAACGTCATGCATTACATGTTAATTATTACA
TGCTTAACGTAATTCAACAGAAATTATATGATAATCATCGCAAGACCGGCAACAGG
ATTCAATCTTAAGAACTTTATTGCCAAATGTTTGAACGATCGGGGAAATTCGAGCT
CAAACCTACGGCCATGGCGTAGGCGGCCTTTTCCGTTGTGATCTTCGCGGTCTCCT
CCTTGTTTTTGGACTAGTACCACCACCGCTACCACCACCTTCGGTTACCGTGAAGG
TTTTGGTAGCGTCGTCGTAGGTCCATTACCGTCAACACCGTTGTCGTTAGCGTAC
TGTTTGAACCTTTTCCGCGGTAGCAGCGTCAACAGCTTCGGTGGTGGTTTCACC
TTTCAGGGTTTTACCGTTCAGGATAAGCTTGTACTCTTCGGTCCGAGATCCTCCTC
CCGTACGTCAGACCCAATGGTTATAGGGCCCCGCAACGTGTGTGAGAGCATAAAGG
GGACACGGTGACAACATTGTCATGGGTTAATGTTAATGCTTTATGAGAAGGAATTT
GGTTCAATTCATTTACTTCAGAGGACTGTTCTGGACCTTCATTAGCTGCCTGGTCTT
TTTGCTCTGAGGCCTTCATTTTCTTATTCTTAGCTTCTTTAGCCTCAAACCTAATCTT
GTTTAGTTCAAACCATGTTGGGGCTTATTTAGGTTTTTGTGCTGGTAAAAGACAAG
GGAGAGGCGGGTGGATGATTACGGTTGGGGTGCTCAACAGGAGTGGTAGCGTG
CAGCTCTCGCCGGGCACACTCAATCAAACCGAGCCGTGAGCAGGTGCGATGGC
CACCCACCAATATTTGCATCCAAAAGATGTGCTCACTGTCTGACCAATACTCATC
AATGTGGGGCAATTTCTCCTCAGCAGGTGACAGGGGGTCATCAGATAGGGGTTTCG
TCTGATGGAGGCTCATCTGCTTCAGAATGCTGCTCATCTTCTTCCATTGGAGAAGA
GGCAAGGTCTTGAGGAGAGGTGAGGAAGGAGGGCTGGTGGTTTGGCTGATGAGG
CGTTAGCGGCTCAGTCACACCAGTGAAGGCTCAGAATTAATGAGGGGCTCCATC
ACAGGAGCAGACAGGGTGGGGAGAGGAGCCACTTCGCCAAGCTGTGAAATGCCA
GGCCATCAGCAGCTGCAGCATTGGCACCCTGAGTCTTCCCGAAGGCATCGTAC
AGTGGGGAGTGCTGCTTCTTTCTGAAAACCCGCATGAGGCTGTTGCGTCATTCTTC
AGTGGAGCTGGTGTGGCTGAAGCAGTCTTCGGGGACCAGGAGAAGCCTGGAGAT
GCCTCTTTCACTGGGTGAGGAGCGGATGGCATCAGCGAATAAGTTTTAGTGTGTC
TGAACTTTTAAGATAAAATGGGGTTCGGTTTCACTTTTTACTTCAGGTTGCACGGT
CTCAGTGTTACTCCCTAAGGTTGGCAGTGACGAAGGCTTACTGTTGTTTGTGTTG
TTGAGTTATTCTTCGCTTGATTCCGGGAATAGGTTTCTTTTCCACTGCCCTTATCT
TATGTGCAAGAACCTCTGTCATCATCGCAGCCCTCTTCTTCCAGAACGGGGAACA
GGCTGAGTGAAACACGTTCTTTTTTTCGGCGGGGTGCCAGGACCTCGATGGCCC
CAGATTTGATCTTGGCTTCCATTCTTCTTGGAGCCAACTCATCTGTGTCTGAAA
GCTTATAAAGAGGTAGCACATGGAGCTGCTCATCTTGAGGAATAACACCCAAAGAG

CGGTTATCTTCTCGAGTTAAGGTACAAACCACAGTGCTTCCATTATTCATGTTGTGA
ATGTCCCTGTGGGGATGAGCACAGAAGTCCAGGCAAGCAGTGACCCAGAGAAG
GGTCGACCTTCCTTGCTGCCAAGCCGACATTCTCGGGCAACATTTTCATATTCCAC
CTGATTTTGGTAAGCTACTGGAGCATACTGCTTATAAATTGGAGCTAATCGTGTAGC
CAAACCTCTGTAAGTTATCTTCAAGGTTTTTTTCATGTAAGGGAGAGCTTGGATCAAT
TCTAAATCTTCTGGGGCTTGGGCTTCTACCAAACCTTACAGCCATTAAGTACATACT
CCATGAACAGCCAAAAGAGAATGAAGCTCCACAAGTCTCTGGATCAATTCCTTGAC
ATGTACAGGTACGATTTTCATTGAGGGTGCATCTTCTGTGCGGTAGGGTGCCCATTG
TATGACTTTAGATTCTCTGTGAGCTCTGTGTATAGCCGGTCGGCCATTGGAAGAGG
GATGCCATCCCACACCATGATGAGCACCACCATCACAGCAGTTGGACAGTGGTGG
CCTGTACGCTGCCGGACCAAACAAGAACTTTTTCTTCATCACTGCTTCTTCTAAA
ACCCACTTAGCAATTGGACACCCATGAGAGCTTTTCCCTTCTTACCGGTGTACAC
TACTATTTCTATCCTTATTGCGTTTTCTTTTTGACCATACCTATTCTCCATGATTTCC
CTGACAGCAGCAACACTTGGTCCTGCCCAAGGTGTGTATAATATGGGCCTTTGTCT
TTTTGTATAACTCGATCAAGACAGCTGCAGGTGGGCAGCCCGGATCCGCCACCG
CCCACTTTCCGCTTTTTCTTAGGAGCTTCCACCTTGCCTTTTTCTTGGGAGCGCC
GCTGCCCAGGCTGGCATAATCGGGCACGTCATAGGGATAACGTACGACCGGTCCG
ACCTCCACCCTTGTAGAGCTCATCCATGCCATGTGTAATCCAGCAGCAGTTACAA
ACTCAAGAAGGACCATGTGGTCACGCTTTTCGTTGGGATCTTTCGAAAGGACAGAT
TGTGTGCACAGGTAATGGTTGTCTGGTAAAAGGACAGGGCCATCGCCAATTGGAG
TATTTTGTGATAATGGTCTGCTAGTTGAACGGAACCATCTTCAACGTTGTGGCGAA
TTTTGAAGTTAGCTTTGATTCCATTCTTTGTTTGTCTGCCGTGATGTATACATTGTG
TGAGTTAAAGTTGTAAGTCTGAGTTTGTGTCCAAGAATGTTCCATCTTCTTAAAATCA
ATACCCTTAACTCGATACGATTAACAAGGGTATCACCTTCAAACCTGACTTCAGCA
CGCGTCTTGTAGGTCCCGTCATCTTTGAAAGATATAGTGCCTTCCGTGACATAACO
TTCGGGCATGGCACTCTTGA AAAAGTCATGCCGTTTCATGTGATCCGGATAACGGG
AAAAGCATTGAACACCATAGGTCAGAGTAGTGACAAGTGTGGCCACGGAACAGG
TAGTTTTCCAGTAGTGCAAATAAATTAAGGGTGAGTTTTCCGTTTGTAGCATCACC
TTCACCCTCTCCACGGACAGAAAATTTGTGCCATTAACATCACCATCTAATTCAAC
AAGAATTGGGACAACCTCCAGTGAAAAGTTCTTCTCCTTTGCTACCGCTTCCACCTC
CACCTGGATCCAAAGCTTCCGCCGCTCCTGAACCACCACCGCCACTACCTCCTCC
CCCAGAACCTCCGCTCCACCAGCGTAATCTGGAACATCGTATGGGTAGCTGCTC
ACGGTCACCAGGGTGCCCTGGCCCCAGTAGTCGAACAGGCCGGTCACGCAGTAG
TACAGGGCGGTGTCGTGCTGCGCACCTTGCTCATCTGCAGGTACACGGTGTCT
TGCCGTTGTCCTTGTGATGATGAAGCGGTCTTCCAGGGCGCTGTTGTAGTCGGT
GATGCCGTCGCCCCAGATCACGCCGATCCACTCCAGGCCGCGGGCCGGGGCCTG
GCGCACCCAGTTCACGCCGTAGTCGGTCAGGCTGAAGCCGCTCACGGCGCAGCT
CAGCTTCCAGGCTGCCGCCGGGCTGCACCAGGCCGCCGCCGCTCTCCAGCAGCTT
CACCTCGCTGCCGCCGCCGCTGCTGCCGCCGCCGCCGCTGCCGCCGCCGCCGC
TGCCGCCGCCGCCGCCGCTTCACTCCACCTTGGTGCCCTGGCCGAACACCCAGT
GGTTGCTGTACCACAGGGCGCAGAAGTAGGTGGCGAAGTCCTCGGGCTGCAGGC
TGCTGATGGTCAGGGTGGCCTTGTGCGCCGATCAGGCTGCCGCTGAAGCGGCTGG
GCACGCCGGGGGCGCGGTTGTTGGTGCCGCCGATCAGGCCCTTGAACAGCTTGC
CGGGCTTCTCCTGCACCCAGCTGGCGTAGTTGCTGGTGGTCACGGCGCCGGTGC
TGCTGCGGCAGGTGATGGTCACGCGGTGCCACGCTGGCGCTCAGGCTGCTGG
GGCTCTGGGTCATCACGATGTCGGGGCCCATAAACCCTAGGTGTTAATCAGAAAA

ACTCAGATTAATCGACAAATTCGATCGCACAAACTAGAACTAACACCAGATCTAGA
TAGAAATCACAAATCGAAGAGTAATTATTCGACAAACTCAAATTATTTGAACAAAT
CGGATGATATCTATGAAACCCTAATCGAGAATTAAGATGATATCTAACGATCAAACC
CAGAAAATCGTCTTCGATCTAAGATTAACAGAATCTAAACCAAAGAACATATACGAA
ATTGGGATCGAACGAAAACAAAATCGAAGATTTTGAGAGAATAAGGAACACAGAAA
TTTACCTTGATCACGGTAGAGAGAATTGAGAGAAAGTTTTTAAGATTTTGAGAAATT
GAAATCTGAATTGTGAAGAAGAAGAGCTCTTTGGGTATTGTTTTATAGAAGAAGAA
GAAGAAAAGACGAGGACGACTAGGTCACGAGAAAGCTAAGGCGGTGAAGCAATAG
CTAATAATAAAATGACACGTGTATTGAGCGTTGTTTACACGCAAAGTTGTTTTGGC
TAATTGCCTTATTTTTAGGTTGAGGAAAAGTATTTGTGCTTTGAGTTGATAAACACG
ACTCGTGTGTGCCGGCTGCAACCACTTTGACGCCGTTTATTACTGACTCGTCGACA
ACCACAATTTCTAACGGTCGTCATAAGATCCAGCCGTTGAGATTTAACGATCGTTA
CGATTTATATTTTTTAGCATTATCGTTTTATTTTTAAATATACGGTGGAGCTGAAA
ATTGGCAATAATTGAACCGTGGGTCCCCTGCATTGAAGCGTATTTTCGTATTTTCTA
GAATTCTTCGTGCTTTATTTCTTTTCCTTTTTGTTTTTTTTGCCATTTATCTAATGCA
AGTGGGCTTATAAAATCAGTGAATTTCTTGAAAAGTAACTTCTTTATCGTATAACA
TATTGTGAAATTATCCATTTCTTTAATTTTTAGTGTTATTGGATATTTTTGTATGAT
TATTGATTTGCATAGGATAATGACTTTTGTATCAAGTTGGTGAACAAGTCTCGTTAA
AAAAGGCAAGTGGTTTGGTGAICTGATTTATCTTGTTATTTAATTCATATATCAATG
GATCTTATTTGGGGCCTGGTCCATATTTAACACTCGTGTTCAAGTCCAATGACCAATA
ATATTTTTTCATTAATAACAATGTAACAAGAATGATACACAAAACATTCTTTGAATAA
GTTTCGCTATGAAGAAGGGAACCTTATCCGGTCTAGATCATCAGTTCATACAAACCT
CCATAGAGTTCAACATCTTAACAAGAATATCCTGATCTGAAGAATGTGGAGGCTTT
AGTCCCTTGATACTTGGGAGGCTGTGGAAGAACAGAAACGAGCTGGTGCTTAAA
GGGAGGGAATTTGGAACCAATGAGGTATTAGTAAGGACACAAGAAGATGCAGATG
AGTGGATTAGAAGGAAAGAGGCTCAGAATGTAAGGAAAGCACCAACCACAACACC
GTCGGGACAGACGAGAAACATGGGAAGCTCCACCACAATCTTGGGTAAAGTGCAA
CTTTGATGGGGCATGGCCAACAGAAGGATTAATGTGGCTTAGGGTGGGTGCTT
CGCGATCATACAGGGAAGGTGTTATGGTTAGGTGCAAGAGCTGTGGTAAAAGTAA
GAAGCGTGCTGGAAGTAGAAGTGGAGGCTCTTAGATGGGCTGTGCTGTCATTATC
CCGATTCAATTATAGGAAGATCATTTTTGAGGTGGATTCTCAGCAACTTGTGTCTTT
GGTTACATGAAAGTTATGCTTGTCAGTCTCAATCCAATTATCCAAGACATAAAGTA
TCTACTTAGCAAGTTTGAAGATTTTATGCTTGTGCATACAAGCCGAGAAGGAAATG
GAGTGGCAGATAGAATAGCTAAGGAATCTCTTTCTTTTGAGAATTATGATCTAAAGT
TGTATTCTATTGTACCAATTTGGGTAAAAGCTCTGTTGAGCTAGACTCATATGCAT
CCTAGGAAACAAGTTGTAATGAGTTGCTGGCCTCTCTTGGGATTGTTTCATCAAAGT
AGCTGTCCCTACACACCACAACAGAATGGTGTGTGGAGAGAAAGCACAGACACA
TCCTTGAGATGGCAAGGGCACTTAAGTTTCAGAGTGGTGTACCTACCAGGTTTTGG
GGAGACTGTGTCAAGACTGTTGTATACCTGATCAATAGACTCCCTACTCCAATCTTA
CAAGGCAAATGTCCATATGAACTACTCTATCAGAAACATGCCAAGCTTGATCACTT
GAGAGTGTTTGGGTGTCTTGCTTTTGCAGCAACACTGCCCAAAGGTGACAAACTTG
CACCTAGAGCCAAGCGAACCATCTTCATTGGTTATTCTGAGACTCAAAGGGTTAC
AGGTTGTATGACTTGGATAATAAGGTGATCATAGTGAGCAGGGATGTAGTTTTCAG
AGAGTTTCAGTTCCCTTTCAAAGAGTCCATCTCCCATGAACCTGATATGTTCACTCG
AGCAGGTTCACTTAGCTCTGAAGATACAGCTTTGCAGCTAGTGTATAATGATATTTT
TCCTTCCAGCTTTCATACTGATGATGATACTCCAGTTCTTATTCTGACATTGT

AGAGGCCAATGAGGATATCACTTTGGGGACTCATTCTACCCAAAATCATATCACTT
CAGCTGATGCTGCACCTTCAGGCCACCTGCATGCTCCTGCAGAGTCAGTTGAGTC
AGCTGAGCCTGACCTAGCAAATGCTGAATTTGAGCACCATACTGCTGTAGCTGATC
CCTCTCTAGTTCCAGCAAACCTGCACACTAGACCTAAACGCAATGCAGGTCCTCCC
ATCTGGCTCAAGGACTTTGTGACACTGAACAAAGGCTCTAGGGATGTTCCATACCC
TATAGCCAATGATGTTTCTATGATCACTTGCCTGTTCACTATCAAGCTTATTTGAGT
GCTTTCTCCACTTATACTGAACCTAAATCCTTCAAAGAAGCAGCTCAAGATGAGAAA
TGGATGGAGGCCATGTCCCTTGAGATACAGGCTCTTGAGGATAATAACACCTGGG
AGATTGTCCTTTACCCCCTGGTAAACAGCCTATAGGGTCCAAATGGGTGTACAAA
ATTAATACAAAGCTAATGGTGAAGTTGACAGGTTTAAGGCAAGGCTAGTGGCCAA
GGGATACACTCAGCAAGAAGGCTTGACTACCATGAACTTTTTCTCCAGTGGCCA
AAATGGTCACTGTAAAAGCTGTCATATCTGTTGCTGCTTCCAAGGGCTGGTTCCTTT
TCCAGATGGATGTCAACAATGCTTTTCTACAAGGTGACCTCATGGAAGAAGTTTATA
TGTCTCTGCCTCAGGGTTTTACAGCCAAGGGGAGACCAAAGTGTGCAGGCTGTT
GAATCCCTCTATGGTTTAAAGCAAGCATCAAGGCAGTGGAACATCAAGCTTACCAC
TGCCTTATGCAGGCTGTTTTATGCAAAGTGCTTATGATCACTCCTGTTTACCAA
AAGAGAGGGGACTGACCTTGCATAATCCTGATTTATGTGGATGATCTGTTAATAA
CAGGCAGCAGCAATGTTTTGATTTCAGAAGCAAAGGCAACCCTGCATCAGCATTTC
AAGATGAAAGATTTGGGAGAATAAAATACTTCTTAGGCATTGAGGTGCTGAGATC
AGAAAAGGGAATCCTACTGAACCAGAGGAAGTATGCACTGGAACATGATATCAGGT
GTTGGTCTGGGAGGCTGCAGACCAGTGTCAACCCCAATGGAACAGAACCAAAGGC
TGACTACTGTAGAATATGACAAGCACTTAGGAAAGACTGATGATGCAGAGTTAGAG
GATGTGGGTTCTATCAGAGACTGGTGGGAAAGCTTCTCTACTTGACAATCACAAG
GCCAGATATCAGCTTTGCAGTGCAGGTGCTGAGTCAATTCATGCAGCAACCCAAAC
AGTCACACCTGGAAGCAGCATTGAGGGTTGTGAAGTACATAAAAAGGTTCTCCAGGT
GTTAGGAA**GCGGCCGCATGCATATG**AGTCTAGCTCAACAGAGCTTTTAACCCAAAT
TGGTACAATAGAATACAACCTTTAGATCATAATTCTCAAAGAAAGAGATTCCCTTAGC
TATTCTATCTGCCACTCCATTTCTTCTCGGCTTGATGCACAAGCATAAAAATCCTC
AACTTGCTAAGTAGATACTTTATGTCTTGGATAATTGGATTGAGACTTGACAAGCA
TAACTTTTCATGTAACCAAAGACACAAGTTGCTGAGAATCCACCTCAAAAATGATCTT
CCTATAATTGAATCGGGATAATGACAGCACAGCCCATCTAAGAGCCTCCACTTCTA
CTTCCAGCACGCTTCTTACTTTTACCACAGCTCTTGCACCTAACCATAACACCTTCC
CTGTATGATCGCGAAGCACCCACCCTAAGCCACATTTTAATCCTTCTGTTGGCCAT
GCCCCATCAAAGTTGCACTTAACCCAAGATTGTGGTGGAGCTTCCCATGTTTCTCG
TCTGTCCCGACGGTGTGTTGGTGGTGGTCTTTCCTTACATTCTGAGCCTCTTTCCTTC
TAATCCACTCATCTGCATCTTCTTGTGTCCTTACTAATACCTCATTGGTTCCAAATTC
CCTCCCTTTAAGCACCAGCTCGTTTCTGTTCTTCCACAGCCTCCAAGTATCCAAG
GGACTAAAGCCTCCACATTCTTCCAGATCAGGATATTCTTGTTAAAGATGTTGAACTC
TATGGAGGTTTGATGAACTGATGATCTAGGACCGGATAAGTTCCCTTCTTCATAG
CGAACTTATTCAAAGAATGTTTTGTGTATCATTCTTGTTACATTGTTATTAATGAAAA
AATATTATTGGTCATTGGACTGAACACGAGTGTTAAATATGGACCAGGCCCCAAAT
AAGATCCATTGATATATGAATTAATAACAAGAATAAATCGAGTCACCAAACCACTT
GCCTTTTTTAACGAGACTTGTTACCAACTTGATACAAAAGTCATTATCCTATGCAA
ATCAATAATCATACAAAAATATCCAATAACACTAAAAAATTAAGAAATGGATAATT
TCACAATATGTTATACGATAAAGAAGTTACTTTTCCAAGAAATCACTGATTTTATAA
GCCCACTTGCATTAGATAAATGGCAAAAAAAAAACAAAAAGGAAAAGAAATAAAGCA

CGAAGAATTCTAGAAAATACGAAATACGCTTCAATGCAGTGGGACCCACGGTTCAA
TTATTGCCAATTTTCAGCTCCACCGTATATTTAAAAATAAAACGATAATGCTAAAAA
AATATAAATCGTAACGATCGTTAAATCTCAACGGCTGGATCTTATGACGACCGTTAG
AAATTGTGGTTGTCGACGAGTCAGTAATAAACGGCGTCAAAGTGGTTGCAGCCGG
CACACACGAGTCGTGTTTATCAACTCAAAGCACAAATACTTTTCCTCAACCTAAAAA
TAAGGCAATTAGCCAAAAACAACCTTTGCGTGTAACAACGCTCAATACACGTGTCA
TTTTATTATTAGCTATTGCTTACCAGCCTTAGCTTTCTCGTGACCTAGTCGTCTCTCG
TCTTTTCTTCTTCTTCTTCTATAAAACAATACCCAAAGAGCTCTTCTTCTTACAATT
CAGATTTCAATTTCTCAAATCTTAAAAACTTTCTCTCAATTCTCTTACCGTGATCA
AGGTAAATTTCTGTGTTCTTATTCTCTCAAATCTTCGATTTTGTTTTCGTTTCGATC
CCAATTTTCGTATATGTTCTTTGGTTTAGATTCTGTAAATCTTAGATCGAAGACGATTT
TCTGGGTTTGATCGTTAGATATCATCTTAATTCTCGATTAGGGTTTCATAGATATCAT
CCGATTTGTTCAAATAATTTGAGTTTTGTGCAATAATTACTCTTCGATTTGTGATTTCT
TATCTAGATCTGGTGTTAGTTTCTAGTTTGTGCGATCGAATTTGTGATTAATCTGA
GTTTTTCTGATTAACAGGGATCATCAACAAGTTTGTACAAAAAAGCAGGCTCTTTAA
AGTATTTTTACAACAATTACCAACAACAACAACAACAACAACATTACAATTACTAT
TTACAATTACAAAAAAAGTTAACATGGACAAGAAGTACAGCATCGGCCTGGCCATC
GGCACCAACTCTGTGGGCTGGGCCGTGATACCGACGAGTACAAGGTGCCCAGC
AAGAAATTC AAGGTGCTGGGCAACACCGACCGGCACAGCATCAAGAAGAACCTGA
TCGGCGCCCTGCTGTTTCGACAGCGGAGAAACAGCCGAGGCCACCCGGCTGAAGA
GAACCGCCAGAAGAAGATACACCAGACGGAAGAACCGGATCTGCTATCTGCAAGA
GATCTTCAGCAACGAGATGGCCAAGGTGGACGACAGCTTCTTCCACAGACTGGAA
GAGTCCTTCTGGTGAAGAGGATAAGAAGCACGAGCGGCACCCCATCTTCGGCA
ACATCGTGGACGAGGTGGCCTACCACGAGAAGTACCCACCATCTACCACCTGAG
AAAGAACTGGTGGACAGCACCGACAAGGCCGACCTGCGGCTGATCTATCTGGCC
CTGGCCACATGATCAAGTTCGGGGCCACTTCTGATCGAGGGCGACCTGAACC
CCGACAACAGCGACGTGGACAAGCTGTTTCATCCAGCTGGTGCAGACCTACAACCA
GCTGTTTCGAGGAAAACCCCATCAACGCCAGCGCGTGGACGCCAAGGCCATCCT
GTCTGCCAGACTGAGCAAGAGCAGACGGCTGGAAAATCTGATCGCCAGCTGCC
GGCGAGAAGAAGAATGGCCTGTTTCGGCAACCTGATTGCCCTGAGCCTGGGCCTG
ACCCCAACTTCAAGAGCAACTTCGACCTGGCCGAGGATGCCAACTGCAGCTGA
GCAAGGACACCTACGACGACGACCTGGACAACCTGCTGGCCAGATCGGCGACC
AGTACGCCGACCTGTTTCTGGCCGCAAGAACCTGTCCGACGCCATCCTGCTGAG
CGACATCCTGAGAGTGAACACCGAGATCACCAAGGCCCCCTGAGCGCCTCTATG
ATCAAGAGATACGACGAGCACCACCAGGACCTGACCCTGCTGAAAGCTCTCGTGC
GGCAGCAGCTGCCTGAGAAGTACAAGAGATTTTCTTCGACCAGAGCAAGAACGG
CTACGCCGGCTACATCGATGGCGGAGCCAGCCAGGAAGAGTTCTACAAGTTCATC
AAGCCATCCTGGAAAAGATGGACGGCACCGAGGAAGTCTCGTGAAGCTGAACA
GAGAGGACCTGCTGCGGAAGCAGCGGACCTTCGACAACGGCAGCATCCCCACC
AGATCCACCTGGGAGAGCTGCACGCCATTCTGCGGCGGCAGGAAGATTTTTACCC
ATTCTGAAGGACAACCGGGAAAAGATCGAGAAGATCCTGACCTTCCGCATCCCC
TACTACGTGGGCCCTCTGGCCAGGGGAAACAGCAGATTCGCCTGGATGACCAGAA
AGAGCGAGGAAACCATCACCCCTGGAACCTTCGAGGAAGTGGTGGACAAGGGCG
CCAGCGCCAGAGCTTCATCGAGCGGATGACCAACTTCGATAAGAACCTGCCAA
CGAGAAGGTGCTGCCAAGCACAGCCTGCTGTACGAGTACTTACCCTGTACAAC
GAGCTGACCAAAGTGAATACGTGACCGAGGGAATGAGAAGCCCGCCTTCTGA

GCGGCGAGCAGAAAAAGCCATCGTGGACCTGCTGTTCAAGACCAACCGGAAAGT
GACCGTGAAGCAGCTGAAAGAGGACTACTTCAAGAAAATCGAGTGCTTCGACTCC
GTGGAAATCTCCGGCGTGAAGATCGGTTCAACGCCTCCCTGGGCACATACCAG
ATCTGCTGAAAATTATCAAGGACAAGGACTTCCTGGACAATGAGGAAAACGAGGAC
ATTCTGGAAGATATCGTGCTGACCCTGACACTGTTTGAGGACAGAGAGATGATCGA
GGAACGGCTGAAAACCTATGCCACCTGTTGACGACAAAAGTGATGAAGCAGCTG
AAGCGGCGGAGATACACCGGCTGGGGCAGGCTGAGCCGGAAGCTGATCAACGGC
ATCCGGGACAAGCAGTCCGGCAAGACAATCCTGGATTCCTGAAGTCCGACGGCT
TCGCCAACAGAACTTCATGCAGCTGATCCACGACGACAGCCTGACCTTTAAGAG
GACATCCAGAAAGCCCAGGTGTCCGGCCAGGGCGATAGCCTGCACGAGCACATT
GCCAATCTGGCCGGCAGCCCCGCCATTAAGAAGGGCATCCTGCAGACAGTGAAG
GTGGTGGACGAGCTCGTGAAGTGATGGGCCGGCACAAGCCCGAGAACATCGTG
ATCGAAATGGCCAGAGAGAACCAGACCACCCAGAAGGGACAGAAGAACAGCCGC
GAGAGAATGAAGCGGATCGAAGAGGGCATCAAGAGCTGGGCAGCCAGATCCTG
AAAGAACACCCCGTGGAAAACACCCAGCTGCAGAACGAGAAGCTGTACCTGTACT
ACCTGCAGAATGGGCGGGATATGTACGTGGACCAGGAACTGGACATCAACCGGCT
GTCCGACTACGATGTGGACGCTATCGTGCCTCAGAGCTTTCTGAAGGACGACTCC
ATCGATAACAAAGTGCTGACTCGGAGCGACAAGAACCAGGGGCAAGAGCGACAAC
GTGCCCTCCGAAGAGGTCGTGAAGAAGATGAAGAACTACTGGCGCCAGCTGCTGA
ATGCCAAGCTGATTACCCAGAGGAAGTTCGACAATCTGACCAAGGCCGAGAGAGG
CGGCCTGAGCGAACTGGATAAGGCCGGCTTCATCAAGAGACAGCTGGTGGAAAC
CCGGCAGATCACAAAGCACGTGGCACAGATCCTGGACTCCCGGATGAACACTAAG
TACGACGAGAACGACAAACTGATCCGGGAAGTGAAAGTGATCACCTGAAGTCCA
AGCTGGTGTCCGATTTCCGGAAGGATTTCCAGTTTTACAAAGTGCGCGAGATCAAC
AACTACCACCACGCCACGACGCCTACCTGAACGCCGTCGTGGGAACCGCCCTG
ATCAAAAAGTACCCTAAGCTGGAAAGCGAGTTCGTGTACGGCGACTACAAGGTGT
ACGACGTGCGGAAGATGATCGCCAAGAGCGAGCAGGAAATCGGCAAGGCTACCG
CCAAGTACTTCTTCTACAGCAACATCATGAACTTTTTCAAGACCGAGATTACCCTGG
CCAACGGCGAGATCCGGAAGCGGCCTCTGATCGAGACAAACGGCGAAACAGGCG
AGATCGTGTGGGATAAGGGCCGGGACTTTGCCACCGTGCGGAAAGTGCTGTCTAT
GCCCAAGTGAATATCGTGAAAAAGACCGAGGTGCAGACAGGCGGCTTCAGCAA
GAGTCTATCCTGCCAAGAGGAACAGCGACAAGCTGATCGCCAGAAAGAAGGACT
GGGACCCTAAGAAGTACGGCGGCTTCGACAGCCCCACCGTGGCCTATTCTGTGCT
GGTGGTGGCCAAAGTGGAAGGGCAAGTCCAAGAACTGAAGAGTGTGAAAGAG
CTGCTGGGGATCACCATCATGGAAAGAAGCAGCTTCGAGAAGAATCCCATCGACT
TTCTGGAAGCCAAGGGCTACAAAGAAGTGAAAAGGACCTGATCATCAAGCTGCC
TAAGTACTCCCTGTTGAGCTGGAAAACGGCCGGAAGAGAATGCTGGCCTCTGCC
GGCGAACTGCAGAAGGGAAACGAACTGGCCCTGCCCTCCAAATATGTGAACTTCC
TGTACCTGGCCAGCCACTATGAGAAGCTGAAGGGCTCCCCGAGGATAATGAGCA
GAAACAGCTGTTTGTGGAACAGCACAAACACTACCTGGACGAGATCATCGAGCAG
ATCAGCGAGTTCTCCAAGAGAGTGATCCTGGCCGACGCTAATCTGGACAAGGTGC
TGAGCGCCTACAACAAGCACAGAGACAAGCCTATCAGAGAGCAGGCCGAGAATAT
CATCCACCTGTTTACCCTGACCAATCTGGGAGCCCCTGCCGCCTTCAAGTACTTTG
ACACCACCATCGACCGGAAGAGGTACACCAGCACCAAGAGGTGCTGGACGCCA
CCCTGATCCACCAGAGCATCACCGGCCTGTACGAGACACGGATCGACCTGTCTCA
GCTGGGAGGCGACGCCATCCCTATGACGTGCCCGATTATGCCAGCCTGGGCAG

CGGCTCCCCCAAGAAAAACGCAAGGTGGAAGATCCTAAGAAAAAGCGGAAAGTG
GAAGATGCTCCAAGAAGAAGAGAAAGGTCGACGGCATTGGTAGTGGGAGCAACG
GCAGCAGCGGATCCAACGGTCCGACTGACGCCGCGGAAGAAGAACTTTTGAGCA
AGAATTATCATCTTGAGAACGAAGTGGCTCGTCTTAAGAAAGTTCTGGCAGTGGA
GGTTCTGGCTCCGGATCTGGTGGTTCGGGCTCAGGCGGGTCCGGATCAGGCGAA
GAACTGCTTCAAAGAATTACCACCTGGAAAATGAGGTAGCTAGACTGAAAAAGG
GAGCGGAAGTGGGGGCTCCGGGTCGGGCTCAGGGGGCTCCGGTTCGGGAGGCT
CAGGGTCGGGGGAGGAGTTGCTGAGCAAAAATTATCATTGGAGAACGAAGTAGC
ACGACTAAAGAAAGGGTCCGGATCGGGTGGTTCAGGATCTGGATCCGGAGGATCA
GGTCCGGTGGTTCGGGCTCAGGAGAGGAGTTACTCTCGAAAATTATCATCTCG
AAACGAAGTGGCTCGGCTAAAAAGGGCAGTGGTTCTGGAGGATCTGGGTCGG
GGTCAGGCGGGTCTGGATCTGGGGGATCTGGATCTGGTGAAGAGCTATTATCTAA
AACTACCACCTCGAAAATGAGGTGGCACGCTTAAAAAGGGAAGTGGCAGTGGT
GGGTCGGGATCTGGCTCTGGTGGCTCAGGCTCGGGAGGTTCCGGTTCGGGGAA
GAGCTACTATCCAAGAATTATCATCTTGAGAACGAGGTAGCGCGTTTGAAGAAGG
TTCCGGCTCAGGAGGATCTGGGTCAGGGTCAGGGGGTTCGGGTCAGGCGGGTC
CGGGTCAGGCGAGGAAGTCTCTCGAAGAACTATCATCTTGAAAATGAGGTCGCT
CGATTA AAAAGGGATCGGGCAGTGGTGGGTCGGGCTCCGGTTCGGGAGGATCG
GGATCTGGGGGCTCGGGATCCGGGGAGGAAGTCTTCAAAGAATTACCACCTCG
AAACGAAGTAGCTCGATTAAGAAGGTTCCAGGGTCGGGTCAGGTTCCGG
ATCAGGTGGGTCAGGCTCCGGTGGTTCAGGTTCCGGGAGAAGAATTACTGAGTAA
AATTATCATCTGAAAATGAGGTAGCGAGACTAAAAAGGGGAGTGGTTCTGGCG
GTTCCGGATCTGGCTCTGGGGGCTCTGGGTCGGGAGGGTCTGGGTCGGGAGG
AATTGCTATCGAAAATTATCATCTTGAGAACGAAGTTGCTAGGCTCAAAAAGGG
TCAGGCTCAGGCGGGTCCGGGTCAGGGTCGGGAGGTTCCGGATCCGGGGGATC
AGGCTCAGGGTAA^{CCC}GGGGGCGCGCCATGATAAC^{TAG}AGTCCTGCTTTAATGAG
ATATGCGAGACGCCTATGATCGCATGATATTTGCTTTCAATTCTGTTGTGCACGTTG
TAAAAACCTGAGCATGTGTAGCTCAGATCCTTACCGCCGTTTCGGTTCATTCTA
ATGAATATATCACCCGTTACTATCGTATTTTATGAATAATATTCTCCGTTCAATTTA
CTGATTGTACCCTACTACTTATATGTACAATATTTAAATGAAAACAATATATTGTGCT
GAATAGGTTTATAGCGACATCTATGATAGAGCGCCACAATAACAAACAATTGCGTTT
TATTATTACAAATCCAATTTAAAAAAGCGGCAGAACCAGTCAAACCTAAAAGACT
GATTACATAAATCTTATTCAAATTTCAAAGTGCCCCAGGGGCTAGTATCTACGACA
CACCGAGCGGCGAATAAACGCTCACTGAAGGGAAGTCCGGTTCGCCGCGG
CGCGCATGGGTGAGATTCTTGAAGTTGAGTATTGGCCGTCCGCTCTACCGAAAG
TTACGGGCACCATTCAACCCGTCCAGCACGGCCGGGTAACCGACTTGCTG
CCCCGAGAATTATGCAGCATTTTTTTGGTGTATGTGGGCCCAAATGAAGTGCAGG
TCAAACCTTGACAGTGACGACAAATCGTTGGGCGGGTCCAGGGCGAATTTGCGA
CAACATGTGAGGCTCAGCAGGACCGGCATGCAAGCTAGCTTACTAGTGATATTCT
ATAGTGTACCTAAATCTGCGGC

SunTagng-14aa

NOS term

TET1cd

2xNLS
Linker
1xHA
sfGFP
scFV
UBQ10
Insulator
Omega RBC
dCAS9
3xNLS
GCN4 10x 14aa
OCS term

CACGGGGTGGTTTGGTTTAAACGTAACATAGATGACACCGCGCGGATAATTTATC
CTAGTTTGCGCGCTATATTTGTTTTCTATCGCGTATTAATGTATAATTGCGGGAC
TCTAATCATAAAAACCCATCTCATAAATAACGTCATGCATTACATGTTAATTATTACA
TGCTTAACGTAATTC AACAGAAATTATATGATAATCATCGCAAGACCGGCAACAGG
ATTCAATCTTAAGAACTTTATTGCCAAATGTTTGAACGATCGGGGAAATTTCGAGCT
CAAACCTTACGGCCATGGCGTAGGCGGCCTTTTCCGTTGTGATCTTCGCGGTCTCCT
CCTTGTTTTTGGACTAGTACCACCACCGCTACCACCACCTTCGGTTACCGTGAAGG
TTTTGGTAGCGTCGTCGTAGGTCCATTCACCGTCAACACCGTTGTCGTTAGCGTAC
TGTTTGAAAACTTTTTCCGCGGTAGCAGCGTCAACAGCTTCGGTGGTGGTTTCACC
TTTCAGGGTTTTACCGTTCAGGATAAGCTTGTACTCTTCGGTCCGAGATCCTCCTC
CCGTACGTCAGACCCAATGGTTATAGGGCCCCGCAACGTGTGTGAGAGCATAAGG
GGACACGGTGACAACATTGTCATGGGTTAATGTTAATGCTTTATGAGAAGGAATTT
GGTTCAATTCATTTACTTCAGAGGACTGTTCTGGACCTTCATTAGCTGCCTGGTCTT
TTTGCTCTGAGGCCTTCATTTTCTTATTCTTAGCTTCTTTAGCCTCAAACCTTAATCTT
GTTTAGTTCAAACCATGTTGGGGCTTATTTAGGTTTTTGTGCTGGTAAAAGACAAG
GGAGAGGCGGGTGGATGATTACGGTTGGGGTGCTCAACAGGAGTGGTAGCGTG
CAGCTCTCGCCGGGCACACTCAATCAAACCGAGCCGTGAGCAGGTGCGATGGC
CACCCACCAATATTTGCATCCAAAAGATGTGCTCACTGTCTGACCAATACTCATC
AATGTGGGGCAATTTCTCCTCAGCAGGTGACAGGGGGTCATCAGATAGGGGTTTCG
TCTGATGGAGGCTCATCTGCTTCAGAATGCTGCTCATCTTCTTCCATTGGAGAAGA
GGCAAGGTCTTGAGGAGAGGTGAGGAAGGAGGGCTGGTGGTTTGGCTGATGAGG
CGTTAGCGGCTCAGTCACACCAGTGAAGGCTCAGAATTAATGAGGGGCTCCATC
ACAGGAGCAGACAGGGTGGGGAGAGGAGCCACTTCGCCAAGCTGTGAAATGCCA
GGGCCATCAGCAGCTGCAGCATTGGCACCCTGAGTCTTCCCGAAGGCATCGTAC
AGTGGGGAGTGCTGCTTCTTTCTGAAAACCCGCATGAGGCTGTTGCGTCATTCTTC
AGTGGAGCTGGTGTGGCTGAAGCAGTCTTCGGGGACCAGGAGAAGCCTGGAGAT
GCCTCTTTCCTGGGTGAGGAGCGGATGGCATCAGCGAATAAGTTTTAGTGTTGTC
TGAACTTTTTAAGATAAAATGGGGTTCGGTTTCACTTTTTACTTCAGGTTGCACGGT
CTCAGTGTTACTCCCTAAGGTTGGCAGTGACGAAGGCTTACTGTTGTTTGGTGGT
TTGAGTTATTCTTCCGCTTGATTGGGGGAATAGGTTTCTTTTCCACTGCCCTTATCT
TATGTGCAAGAACCTCTGTCATCATCGCAGCCCTCTTCTTCCAGAACGGGGAACA

GGCTGAGTGAAACACGTTCTTTTTTTGCGGCGGGGTGCCAGGACCTCGATGGCCC
CAGATTTGATCTTGGCTTCCATTCCCTTGGAGCCAACTCATCTGTGTCTGAAA
GCTTATAAAGAGGTAGCACATGGAGCTGCTCATCTTGGAGGAATAACACCCAAAGAG
CGGTTATCTTCTCGAGTTAAGGTACAAACCACAGTGCTTCCATTATTCATGTTGTGA
ATGTCCCTGTGGGGATGAGCACAGAAGTCCAGGCAAGCAGTGACCCAGAGAAG
GGTCGACCTTCCCTGCTGCCAAGCCGACATTCTCGGGCAACATTTTCATATCCAC
CTGATTTTGGTAAGCTACTGGAGCATACTGCTTATAAATTGGAGCTAATCGTGTAGC
CAAACCTCTGTAAGTTATCTTCAAGGTTTTTTTCATGTAAGGGAGAGCTTGGATCAAT
TCTAAATCTTCTGGGGCTTGGGCTTCTACCAAACCTTACAGCCATTAAGTACATACT
CCATGAACAGCCAAAAGAGAATGAAGCTCCACAAGTCTCTGGATCAATTCCTTGAC
ATGTACAGGTACGATTTTCATTGAGGGTGCATCTTCTGTCCGGTAGGGTGCCATTG
TATGACTTTAGATTCTCTGTGAGCTCTGTGTATAGCCGGTCGGCCATTGGAAGAGG
GATGCCATCCCACACCATGATGAGCACCACCATCACAGCAGTTGGACAGTGGTGG
CCTGTACGCTGCCGGACCAAACAAAGAACTTTTTCTTCATCACTGCTTCTTCTTAAA
ACCACTTAGCAATTGGACACCCATGAGAGCTTTTCCCTTCTTACCAGGTGTACAC
TACTATTTCTATCCTTATTGCGTTTCTTTTTGACCATACCTATTCTCCATGATTTCC
CTGACAGCAGCAACACTTGGTCCTGCCCAAGGTGTGTATAATATGGGCCTTTGTCT
TTTTTGATAACTCGATCAAGACAGCTGCAGGTGGGCAGCCCGGATCCGCCACCG
CCCACTTTCCGCTTTTTCTTAGGAGCTTCCACCTTGCCTTTTTCTTGGGAGCGCC
GCTGCCCAGGCTGGCATAATCGGGCACGTCATAGGGATACGTACGACCGGTCCG
ACCTCCACC TTTGTAGAGCTCATCCATGCCATGTGTAATCCAGCAGCAGTTACAA
ACTCAAGAAGGACCATGTGGTCACGCTTTTCGTTGGGATCTTTCGAAAGGACAGAT
TGTGTCGACAGGTAATGGTTGTCTGGTAAAAGGACAGGGCCATCGCCAATTGGAG
TATTTTGTTGATAATGGTCTGCTAGTTGAACGGAACCATCTTCAACGTTGTGGCGAA
TTTTGAAGTTAGCTTTGATTCCATTCTTTGTTTGTCTGCCGTGATGTATACATTGT
TGAGTTAAAGTTGTAAGTTCGAGTTTGTGTCCAAGAATGTTCCATCTTCTTAAAATCA
ATACCCTTAACTCGATACGATTAACAAGGGTATCACCTTCAAACCTTGAATTCAGCA
CGCGTCTTGTAGGTCCCGTCATCTTGAAGATATAGTGCGTTCCTGTACATAACC
TTCGGGCATGGCACTCTTGA AAAAGTCATGCCGTTTCATGTGATCCGGATAACGGG
AAAAGCATTGAACACCATAGGTCAGAGTAGTGACAAGTGTTGGCCACGGAACAGG
TAGTTTTCCAGTAGTGCAAATAAATTAAGGGTGAAGTTTCCGTTTGTAGCATCACC
TTCACCCTCTCCACGGACAGAAAATTTGTGCCCATTAACATCACCATCTAATTC AAC
AGAATTGGGACAACCTCCAGTGAAAAGTTCTTCTCCTTTGCTACCGCTTCCACCTC
CACCTGGATCCAA GCTTCCGCCGCCTCCTGAACCACCACCGCCACTACCTCCTCC
CCCAGAACCTCCGCCTCCACCAGCGTAATCTGGAACATCGTATGGGTAGCTGCTC
ACGGTCACCAGGGTGCCCTGGCCCCAGTAGTCGAACAGGCCGGTCACGCAGTAG
TACAGGGCGGTGTCGTGCTGCGCACCTTGCTCATCTGCAGGTACACGGTGTCT
TGCCGTTGTCCTTGTGATGATGAAGCGGTCCCTCAGGGCGCTGTTGTAGTCGGT
GATGCCGTCGCCCCAGATCACGCCGATCCACTCCAGGCCGCGGGCCGGGGCCCTG
GCGCACCCAGTTCACGCCGTAGTCGGTCAGGCTGAAGCCGCTCACGGCGCAGCT
CAGCTTCAGGCTGCCGCCGGGCTGCACCAGGCCGCCGCCGCTCTCCAGCAGCTT
CACCTCGCTGCCGCCGCCGCTGCTGCCGCCGCCGCCGCTGCCGCCGCCGCCGC
TGCCGCCGCCGCCGCCGCTTCACTCCACCTTGGTGCCCTGGCCGAACACCCAGT
GGTTGCTGTACCACAGGGCGCAGAAGTAGGTGGCGAAGTCCCTCGGGCTGCAGGC
TGCTGATGGTCAGGGTGGCCTTGTCCGGATCAGGCTGCCGCTGAAGCGGCTGG
GCACGCCGGGGGCGCGGTTGTTGGTGCCGCCGATCAGGCCCTTGAACAGCTTGC

CGGGCTTCTCCTGCACCCAGCTGGCGTAGTTGCTGGTGGTCACGGCGCCGGTGC
TGCTGCGGCAGGTGATGGTCACGCGGTGCGCCACGCTGGCGCTCAGGCTGCTGG
GGCTCTGGGTCATCACGATGTCGGGGCCCATAAACCCTAGGTGTTAATCAGAAAA
ACTCAGATTAATCGACAAATTCGATCGCACAAACTAGAACTAACACCAGATCTAGA
TAGAAATCACAAATCGAAGAGTAATTATTCGACAAAACCTCAAATATTTGAACAAAT
CGGATGATATCTATGAAACCCTAATCGAGAATTAAGATGATATCTAACGATCAAACC
CAGAAAATCGTCTTCGATCTAAGATTAACAGAATCTAAACCAAAGAACATATACGAA
ATTGGGATCGAACGAAAACAAAATCGAAGATTTTGAGAGAATAAGGAACACAGAAA
TTTACCTTGATCACGGTAGAGAGAATTGAGAGAAAGTTTTTAAGATTTTGAGAAATT
GAAATCTGAATTGTGAAGAAGAAGAGCTCTTTGGGTATTGTTTTATAGAAGAAGAA
GAAGAAAAGACGAGGACGACTAGGTCACGAGAAAGCTAAGGCGGTGAAGCAATAG
CTAATAATAAAATGACACGTGTATTGAGCGTTGTTTACACGCAAAGTTGTTTTGGC
TAATTGCCTTATTTTTAGGTTGAGGAAAAGTATTTGTGCTTTGAGTTGATAAACACG
ACTCGTGTGTGCCGGCTGCAACCACTTTGACGCCGTTTATTACTGACTCGTCGACA
ACCACAATTTCTAACGGTCGTCATAAGATCCAGCCGTTGAGATTTAACGATCGTTA
CGATTTATATTTTTTAGCATTATCGTTTTATTTTTAAATATACGGTGGAGCTGAAA
ATTGGCAATAATTGAACCGTGGGTCCCCTGCATTGAAGCGTATTTTCGATTTTTCTA
GAATTCTTCGTGCTTTATTTCTTTTCTTTTGTTTTTTTGCCATTTATCTAATGCA
AGTGGGCTTATAAAATCAGTGAATTTCTTGAAAAGTAACTTCTTTATCGTATAACA
TATTGTGAAATTATCCATTTCTTTAATTTTTTAGTGTTATTGGATATTTTTGTATGAT
TATTGATTTGCATAGGATAATGACTTTTGTATCAAGTTGGTGAACAAGTCTCGTTAA
AAAAGGCAAGTGGTTTGGTGACTCGATTTATCTTGTATTTAATTCATATATCAATG
GATCTTATTTGGGGCCTGGTCCATATTTAACACTCGTGTTCAAGTCCAATGACCAATA
ATATTTTTTCATTAATAACAATGTAACAAGAATGATACACAAAACATTCTTTGAATAA
GTTTCGCTATGAAGAAGGGAACCTATCCGGTCTAGATCATCAGTTCATACAAACCT
CCATAGAGTTCAACATCTTAACAAGAATATCCTGATCTGAAGAATGTGGAGGCTTT
AGTCCCTTGGATACTTGGGAGGCTGTGGAAGAACAGAAACGAGCTGGTGCTTAAA
GGGAGGGAATTTGGAACCAATGAGGTATTAGTAAGGACACAAGAAGATGCAGATG
AGTGGATTAGAAGGAAAGAGGCTCAGAATGTAAGGAAAGCACCAACCACAACACC
GTCGGGACAGACGAGAAACATGGGAAGCTCCACCACAATCTTGGGTAAAGTGCAA
CTTTGATGGGGCATGGCCAACAGAAGGATTAATGTGGCTTAGGGTGGGTGCTT
CGCGATCATACAGGGAAGGTGTTATGGTTAGGTGCAAGAGCTGTGGTAAAAGTAA
GAAGCGTGCTGGAAGTAGAAGTGGAGGCTCTTAGATGGGCTGTGCTGTCATTATC
CCGATTCAATTATAGGAAGATCATTTTTGAGGTGGATTCTCAGCAACTTGTGTCTT
GGTTACATGAAAGTTATGCTTGTCAAGTCTCAATCCAATTATCCAAGACATAAAGTA
TCTACTTAGCAAGTTTGAAGATTTTATGCTTGTGCATACAAGCCGAGAAGGAAATG
GAGTGGCAGATAGAATAGCTAAGGAATCTCTTTCTTTGAGAATTATGATCTAAAGT
TGTATTCTATTGTACCAATTTGGGTAAAAGCTCTGTTGAGCTAGACTCATATGCAT
CCTAGGAAACAAGTTGTAATGAGTTGCTGGCCTCTCTTGGGATTGTTTCATCAAAGT
AGCTGTCCCTACACACCACAACAGAATGGTGTGTTGTGGAGAGAAAGCACAGACACA
TCCTTGAGATGGCAAGGGCACTTAAGTTTCAGAGTGGTGTACCTACCAGGTTTTGG
GGAGACTGTGTCAAGACTGTTGTATACCTGATCAATAGACTCCCTACTCCAATCTTA
CAAGGCAAATGTCCATATGAACTACTCTATCAGAAACATGCCAAGCTTGATCACTT
GAGAGTGTGTTGGGTGTCTTGTCTTTGCAGCAACACTGCCCAAAGGTGACAAACTTG
CACCTAGAGCCAAGCGAACCATCTTCATTGGTTATTCTGAGACTCAAAGGGTTAC
AGGTTGATGACTTGGATAATAAGGTGATCATAGTGAGCAGGGATGTAGTTTTAG

AGAGTTTCAGTTCCCTTTCAAAGAGTCCATCTCCCATGAACCTGATATGTTCACTCG
AGCAGGTTCACTTAGCTCTGAAGATACAGCTTTGCAGCTAGTGTATAATGATATTTT
TCCTTCCAGCTTTTCATACTGATGATGATGATACTCCAGTTCTTATTCCCTGACATTGT
AGAGGCCAATGAGGATATCACTTTGGGGACTCATTCTACCCAAAATCATATCACTT
CAGCTGATGCTGCACCTTCAGGCCACCTGCATGCTCCTGCAGAGTCAGTTGAGTC
AGCTGAGCCTGACCTAGCAAATGCTGAATTTGAGCACCACTACTGCTGTAGCTGATC
CCTCTCTAGTTCCAGCAAACCTGCACACTAGACCTAAACGCAATGCAGGTCCTCCC
ATCTGGCTCAAGGACTTTGTGACACTGAACAAAGGCTCTAGGGATGTTCCATACCC
TATAGCCAACCTATGTTTCTATGATCACTTGCCTGTTCACTATCAAGCTTATTTGAGT
GCTTTCTCCACTTATACTGAACCTAAATCCTTCAAAGAAGCAGCTCAAGATGAGAAA
TGGATGGAGGCCATGTCCCTTGAGATACAGGCTCTTGAGGATAATAACACCTGGG
AGATTGTCCCTTTACCCCTGGTAAACAGCCTATAGGGTCCAAATGGGTGTACAAA
ATTAATACAAAGCTAATGGTGAAGTTGACAGGTTTAAGGCAAGGCTAGTGGCCAA
GGGATACACTCAGCAAGAAGGCCTTGACTACCATGAAACTTTTTCTCCAGTGGCCA
AAATGGTCACTGTAAAAGCTGTCATATCTGTTGCTGCTTCCAAGGGCTGGTTCCTTT
TCCAGATGGATGTCAACAATGCTTTTCTACAAGGTGACCTCATGGAAGAAGTTTATA
TGTCTCTGCCTCAGGGTTTTACAGCCAAGGGGAGACCAAAGTGTGCAGGCTGTT
GAATCCCTCTATGGTTTAAAGCAAGCATCAAGGCAGTGGAACATCAAGCTTACCAC
TGTCTTATGCAGGCTGGTTTTATGCAAAGTGCTTATGATCACTCCTTGTTTACCAA
AAGAGAGGGGACTGACCTTGTATAATCCTGATTTATGTGGATGATCTGTTAATAA
CAGGCAGCAGCAATGTTTTGATTTCAGAAGCAAAGGCAACCCTGCATCAGCATTTC
AAGATGAAAGATTTGGGAGAATAAAATACTTCTTAGGCATTGAGGTGCTGAGATC
AGAAAAGGGAATCCTACTGAACCAGAGGAAGTATGCACTGGAACCTGATATCAGGT
GTTGGTCTGGGAGGCTGCAGACCAGTGTCAACCCCAATGGAACAGAACCAAAGGC
TGACTACTGTAGAATATGACAAGCACTTAGGAAAGACTGATGATGCAGAGTTAGAG
GATGTGGGTTCTATCAGAGACTGGTGGGAAAGCTTCTCTACTTGACAATCACAAG
GCCAGATATCAGCTTTGCAGTGCAGGTGCTGAGTCAATTCATGCAGCAACCCAAAC
AGTCACACCTGGAAGCAGCATTGAGGGTTGTGAAGTACATAAAAGGTTCTCCAGGT
GTTAGGAA**GCGGCCGCATGCATATG**AGTCTAGCTCAACAGAGCTTTTAACCCAAAT
TGGTACAATAGAATACAACTTTAGATCATAATTCTCAAAGAAAGAGATTCCCTTAGC
TATTCTATCTGCCACTCCATTTCTTCTCGGCTTGATGCACAAGCATAAAAATCCTC
AACTTGCTAAGTAGATACTTTATGTCTTGGATAATTGGATTGAGACTTGACAAGCA
TAACTTTCATGTAACCAAAGACACAAGTTGCTGAGAATCCACCTCAAAAATGATCTT
CCTATAATTGAATCGGGATAATGACAGCACAGCCCATCTAAGAGCCTCCACTTCTA
CTTCCAGCACGCTTCTTACTTTTACCACAGCTCTTGCACCTAACCATAACACCTTCC
CTGTATGATCGCGAAGCACCCACCCTAAGCCACATTTTAATCCTTCTGTTGGCCAT
GCCCCATCAAAGTTGCACTTAACCCAAGATTGTGGTGGAGCTTCCCATGTTTCTCG
TCTGTCCCGACGGTGTGGTGGTGGTCTTTCCTTACATTCTGAGCCTCTTTCCTTC
TAATCCACTCATCTGCATCTTCTTGTGTCTTACTAATACCTCATTGGTTCCAAATTC
CCTCCCTTTAAGCACAGCTCGTTTCTGTTCTTCCACAGCCTCCCAAGTATCCAAG
GGACTAAAGCCTCCACATTCTTCCAGATCAGGATATTCTTGTTTAAGATGTTGAACTC
TATGGAGGTTTGTATGAACTGATGATCTAGGACCGGATAAGTTCCCTTCTTCATAG
CGAACTTATTCAAAGAATGTTTTGTGTATCATTCTTGTACATTGTTATTAATGAAAA
AATATTATTGGTCATTGGACTGAACACGAGTGTTAAATATGGACCAGGCCCAAAT
AAGATCCATTGATATATGAATTAATAACAAGAATAAATCGAGTCACCAAACCACTT
GCCTTTTTTAACGAGACTTGTTCCACCAACTTGATACAAAAGTCATTATCCTATGCAA

ATCAATAATCATACAAAAATATCCAATAACACTAAAAAATTAAGAAATGGATAATT
TCACAATATGTTATACGATAAAGAAGTTACTTTTCCAAGAAATTCAGTATTTTATAA
GCCCACTTGCATTAGATAAATGGCAAAAAAAAAACAAAAAGGAAAAGAAATAAAGCA
CGAAGAATTCTAGAAAATACGAAATACGCTTCAATGCAGTGGGACCCACGGTTCAA
TTATTGCCAATTTTCAGCTCCACCGTATATTTAAAAATAAAAACGATAATGCTAAAAA
AATAAATCGTAACGATCGTTAAATCTCAACGGCTGGATCTTATGACGACCGTTAG
AAATTGTGGTTGTCGACGAGTCAAGTAATAAACGGCGTCAAAGTGGTTGCAGCCGG
CACACACGAGTCGTGTTTATCAACTCAAAGCACAAATACTTTTCCTCAACCTAAAAA
TAAGGCAATTAGCCAAAAACAACCTTTGCGTGTAACAACGCTCAATACACGTGTCA
TTTTATTATTAGCTATTGCTTCACCGCCTTAGCTTTCTCGTGACCTAGTCGTCCTCG
TCTTTTCTTCTTCTTCTATAAAACAATACCCAAAGAGCTCTTCTTCTTACAATT
CAGATTTCAATTTCTCAAATCTTAAAACTTTCTCTCAATTCTCTTACCGTGATCA
AGGTAAATTTCTGTGTTTCTTATTCTCTCAAATCTTCGATTTTGTTCGTTTCGATC
CCAATTTTCGTATATGTTCTTTGGTTTAGATTCTGTAAATCTTAGATCGAAGACGATTT
TCTGGGTTTGATCGTTAGATATCATCTTAATTCTCGATTAGGGTTTCATAGATATCAT
CCGATTTGTTCAAATAATTTGAGTTTTGTGGAATAATTACTCTTCGATTTGTGATTTCT
TATCTAGATCTGGTGTTAGTTTCTAGTTTGTGCGATCGAATTTGTGATTAATCTGA
GTTTTTCTGATTAACAGGGATCATCAACAAGTTTGTACAAAAAGCAGGCTCTTTAA
AGTATTTTACAACAATTACCAACAACAACAACAACAACAACAACATTACAATTACTAT
TTACAATTACAAAAAAAGTTAACATGGACAAGAAGTACAGCATCGGCCTGGCCATC
GGCACCAACTCTGTGGGCTGGGCCGTGATCACCGACGAGTACAAGGTGCCCAGC
AAGAAATTCAAGGTGCTGGGCAACACCGACCGGCACAGCATCAAGAAGAACCTGA
TCGGCGCCCTGCTGTTTCGACAGCGGAGAACAGCCGAGGCCACCCGGCTGAAGA
GAACCGCCAGAAGAAGATACACCAGACGGGAAGAACCGGATCTGCTATCTGCAAGA
GATCTTCAGCAACGAGATGGCCAAGGTGGACGACAGCTTCTTCCACAGACTGGAA
GAGTCTTCTGTTGGAAGAGGATAAGAAGCACGAGCGGCACCCCATCTTCGGCA
ACATCGTGGACGAGGTGGCCTACCACGAGAAGTACCCACCATCTACCACCTGAG
AAAGAACTGGTGGACAGCACCGACAAGGCCGACCTGCGGGCTGATCTATCTGGCC
CTGGCCACATGATCAAGTTCGGGGCCACTTCTGATCGAGGGCGACCTGAACC
CCGACAACAGCGACGTGGACAAGCTGTTTCATCCAGCTGGTGCAGACCTACAACCA
GCTGTTTCGAGGAAAACCCCATCAACGCCAGCGCGGTGGACGCCAAGGCCATCCT
GTCTGCCAGACTGAGCAAGAGCAGACGGCTGGAAAATCTGATCGCCAGCTGCC
GGCGAGAAGAAGAATGGCCTGTTTCGGCAACCTGATTGCCCTGAGCCTGGGCCTG
ACCCCAACTTCAAGAGCAACTTCGACCTGGCCGAGGATGCCAACTGCAGCTGA
GCAAGGACACCTACGACGACGACCTGGACAACCTGCTGGCCAGATCGGCGACC
AGTACGCCGACCTGTTTCTGGCCGCAAGAACCTGTCCGACGCCATCCTGCTGAG
CGACATCCTGAGAGTGAACACCGAGATCACCAGGCCCCCTGAGCGCCTCTATG
ATCAAGAGATACGACGAGCACCACAGGACCTGACCCTGCTGAAAGCTCTCGTGC
GGCAGCAGCTGCCTGAGAAGTACAAGAGATTTTCTTCGACCAGAGCAAGAACGG
CTACGCCGGCTACATCGATGGCGGAGCCAGCCAGGAAGAGTTCTACAAGTTCATC
AAGCCCATCCTGGAAAAGATGGACGGCACCGAGGAAGTCTCGTGAAGCTGAACA
GAGAGGACCTGCTGCGGAAGCAGCGGACCTTCGACAACGGCAGCATCCCCACC
AGATCCACCTGGGAGAGCTGCACGCCATTCTGCGGCGGCAGGAAGATTTTACCC
ATTCTGAAGGACAACCGGGAAAAGATCGAGAAGATCCTGACCTTCCGCATCCCC
TACTACGTGGGCCCTCTGGCCAGGGGAAAACAGCAGATTCGCCTGGATGACCAGAA
AGAGCGAGGAAACCATCACCCCTGGAACCTTCGAGGAAGTGGTGGACAAGGGCG

CCAGCGCCCAGAGCTTCATCGAGCGGATGACCAACTTCGATAAGAACCTGCCAA
CGAGAAGGTGCTGCCAAGCACAGCCTGCTGTACGAGTACTTCACCGTGTACAAC
GAGCTGACCAAAGTGAAATACGTGACCGAGGGAATGAGAAAGCCC GCCTTCCTGA
GCGGCGAGCAGAAAAAGCCATCGTGGACCTGCTGTTCAAGACCAACCGGAAAGT
GACCGTGAAGCAGCTGAAAGAGGACTACTTCAAGAAAATCGAGTGCTTCGACTCC
GTGGAATCTCCGGCGTGGAAGATCGGTTCAACGCCTCCCTGGGCACATACCAG
ATCTGCTGAAAATTATCAAGGACAAGGACTTCCTGGACAATGAGGAAAACGAGGAC
ATTCTGGAAGATATCGTGCTGACCCTGACACTGTTTGAGGACAGAGAGATGATCGA
GGAACGGCTGAAAACCTATGCCACCTGTTGACGACAAAAGTGATGAAGCAGCTG
AAGCGGCGGAGATACACCGGCTGGGGCAGGCTGAGCCGGAAGCTGATCAACGGC
ATCCGGGACAAGCAGTCCGGCAAGACAATCCTGGATTTCTGAAGTCCGACGGCT
TCGCCAACAGAACTTCATGCAGCTGATCCACGACGACAGCCTGACCTTTAAGAG
GACATCCAGAAAGCCCAGGTGTCCGGCCAGGGCGATAGCCTGCACGAGCACATT
GCCAATCTGGCCGGCAGCCCCGCCATTAAGAAGGGCATCCTGCAGACAGTGAAG
GTGGTGGACGAGCTCGTGAAAGTGATGGGCCGGCACAAGCCCGAGAACATCGTG
ATCGAAATGGCCAGAGAGAACCAGACCACCCAGAAGGGACAGAAGAACAGCCGC
GAGAGAATGAAGCGGATCGAAGAGGGCATCAAAGAGCTGGGCAGCCAGATCCTG
AAAGAACACCCCGTGGAAAACACCCAGCTGCAGAACGAGAAGCTGTACCTGTACT
ACCTGCAGAATGGGCGGGATATGTACGTGGACCAGGAACTGGACATCAACCGGCT
GTCCGACTACGATGTGGACGCTATCGTGCCTCAGAGCTTTCTGAAGGACGACTCC
ATCGATAACAAAGTGCTGACTCGGAGCGACAAGAACC GGGGCAAGAGCGACAAC
GTGCCCTCCGAAGAGGTCGTGAAGAAGATGAAGAACTACTGGCGCCAGCTGCTGA
ATGCCAAGCTGATTACCCAGAGGAAGTTCGACAATCTGACCAAGGCCGAGAGAGG
CGGCCTGAGCGAACTGGATAAGGCCGGCTTCATCAAGAGACAGCTGGTGGAAAC
CCGGCAGATCACAAAGCACGTGGCACAGATCCTGGACTCCCGGATGAACACTAAG
TACGACGAGAACGACAAACTGATCCGGGAAGTGAAAGTGATCACCTGAAGTCCA
AGCTGGTGTCCGATTTCCGGAAGGATTTCCAGTTTTACAAAGTGCGCGAGATCAAC
AACTACCACACGCCACGACGCCTACCTGAACGCCGTCGTGGGAACCGCCCTG
ATCAAAAAGTACCCTAAGCTGGAAAGCGAGTTCGTGTACGGCGACTACAAGGTGT
ACGACGTGCGGAAGATGATCGCCAAGAGCGAGCAGGAAATCGGCAAGGCTACCG
CCAAGTACTTCTTACAGCAACATCATGAACTTTTTCAAGACCGAGATTACCCTGG
CCAACGGCGAGATCCGGAAGCGGCCTCTGATCGAGACAAACGGCGAAACAGGCG
AGATCGTGTGGGATAAGGGCCGGGACTTTGCCACCGTGCGGAAAGTGCTGTCTAT
GCCCAAGTGAATATCGTGAAAAAGACCGAGGTGCAGACAGGCGGCTTCAGCAA
GAGTCTATCCTGCCAAGAGGAACAGCGACAAGCTGATCGCCAGAAAGAAGGACT
GGGACCCTAAGAAGTACGGCGGCTTCGACAGCCCCACCGTGGCCTATTCTGTGCT
GGTGGTGGCCAAAGTGGAAGGGCAAGTCCAAGAACTGAAGAGTGTGAAAGAG
CTGCTGGGGATCACCATCATGGAAAGAAGCAGCTTCGAGAAGAATCCCATCGACT
TTCTGGAAGCCAAGGGCTACAAAGAAGTGAAAAGGACCTGATCATCAAGCTGCC
TAAGTACTCCCTGTTTCGAGCTGGAAAACGGCCGGAAGAGAATGCTGGCCTCTGCC
GGCGAACTGCAGAAGGGAAACGAACTGGCCCTGCCCTCCAATATGTGAACTTCC
TGTACCTGGCCAGCCACTATGAGAAGCTGAAGGGCTCCCCGAGGATAATGAGCA
GAAACAGCTGTTTGTGGAACAGCACAAACACTACCTGGACGAGATCATCGAGCAG
ATCAGCGAGTTCTCAAGAGAGTGATCCTGGCCGACGCTAATCTGGACAAGGTGC
TGAGCGCCTACAACAAGCACAGAGACAAGCCTATCAGAGAGCAGGCCGAGAATAT
CATCCACCTGTTTACCCTGACCAATCTGGGAGCCCCTGCCGCCTTCAAGTACTTG

ACACCACCATCGACCGGAAGAGGTACACCAGCACCAAGAGGTGCTGGACGCCA
CCCTGATCCACCAGAGCATCACCGGCTGTACGAGACACGGATCGACCTGTCTCA
GCTGGGAGGCGACGCCATATCCCTATGACGTGCCCGATTATGCCAGCCTGGGCAG
CGGCTCCCCCAAGAAAAACGCAAGGTGGAAGATCCTAAGAAAAAGCGGAAAGTG
GAAGATGCTCCAAGAAGAAGAGAAAGGTCGACGGCATTGGTAGTGGGAGCAACG
GCAGCAGCGGATCCAACGGTCCGACTGACGCCGCGGAAGAAGAAGCTTTGAGCA
AGAATTATCATCTTGAGAACGAAGTGGCTCGTCTTAAGAAAGTTCTGGCAGTGG
GTTCTGGCTCCGGAGGTTCCGGCGGGGAAGAACTGCTTCAAAGAATTACCACC
TGAAAATGAGGTAGCTAGACTGAAAAGGGGAGCGGAAGTGGGGGCTCCGGGT
CGGGCGGCTCTGGGGGAGAGGAGTTGCTGAGCAAAAATTATCATTTGGAGAACGA
AGTAGCACGACTAAAGAAAGGTCCGGATCGGGTGGTTCAGGATCTGGAGGTTCC
GGTGGGGAGGAGTTACTCTCGAAAATTATCATCTCGAAAACGAAGTGGCTCGGC
TAAAAAAGGGCAGTGGTTCTGGAGGATCTGGGTCCGGGGGATCCGGGGGTGAAG
AGCTATTATCTAAAAACTACCACCTCGAAAATGAGGTGGCACGCTTAAAAAAGGGA
AGTGGCAGTGGTGGGTCGGGATCTGGCGGGTCCGGTGGAGAAGAGCTACTATCC
AGAATTATCATCTTGAGAACGAGGTAGCGCGTTTGAAGAAGGTTCCGGCTCAG
GAGGATCTGGGTCAGGGGGCTCAGGAGGGGAGGAACTGCTCTCGAAGAACTATC
ATCTTGAAGATGAGGTCGCTCGATTA AAAAAGGGATCGGGCAGTGGTGGGTCCGG
CTCCGGTGGTTCGGGGGGCGAGGAACTACTTCAAAGAATTACCACCTCGAAAAC
GAAGTAGCTCGATTAAGAAAGGTTCCGGGTCGGGTGGCTCAGGTTCCGGGAGGAT
CCGGCGGTGAAGAATTACTGAGTAAAATTATCATCTGGAAAATGAGGTAGCGAGA
CTAAAAAAGGGGAGTGGTTCTGGCGGTTCCGGATCTGGCGGGTCCGGAGGGGAG
GAATTGCTATCGAAAATTATCATCTTGAGAACGAAGTTGCTAGGCTCAAAAAGGG
CTCAGGCTCAGGCGGGTCCGGGTCCGGGCTCAGGGGGCTCAGGTGGCTAACCCGGGGGCG
CGCCATGATAAC TAGAGTCCTGCTTAAATGAGATATGCGAGACGCCTATGATCGCA
TGATATTTGCTTCAATTCTGTTGTGCACGTTGTA AAAAACCTGAGCATGTGTAGCT
CAGATCCTTACCGCCGGTTCCGGTTCATTCTAATGAATATATCACCCGTTACTATCG
TATTTTTATGAATAATATTCTCCGTTCAATTTACTGATTGTACCCTACTACTTATATGT
ACAATATTA AAATGAAAACAATATATTGTGCTGAATAGGTTTATAGCGACATCTATG
ATAGAGCGCCACAATAACAACAATTGCGTTTTATTATTACAAATCCAATTTTAAAAA
AAGCGGCAGAACCGGTCAAACCTAAAAGACTGATTACATAAATCTTATTCAAATTC
AAAAGTGCCCAAGGGGCTAGTATCTACGACACACCGAGCGGCGAACTAATAACGC
TCACTGAAGGGAAGTCCGGTTC CCGGCCGGCGGCATGGGTGAGATTCCTTGAAG
TTGAGTATTGGCCGTCCGCTCTACCGAAAGTTACGGGCACCATTCAACCCGGTCC
AGCACGGCGGCCGGGTAACCGACTTGCTGCCCGAGAATTATGCAGCATTTTTTT
GGTGTATGTGGGCCCCCAAATGAAGTGCAGGTCAAACCTTGACAGTGACGACAAAT
CGTTGGGCGGGTCCAGGGCGAATTTTGCGACAACATGTCGAGGCTCAGCAGGAC
CGGCATGCAAGCTAGCTTACTAGTGATATTCTATAGTGTACCTAAATCTGCGGC