

***Drosophila* Arl6IP1 Knockout ssDonor DNA sequence:**

5'–ATAATGATTCTCATTTTTCCGGCATTTCAGAAACGAGCACTTAACAAATTAAAGCACGACTGATAATAGT
TGGAGCCTTTCCGGACAGCGATTGTTGGAGCCGTACGGCGTGCTAACCTGGGAGAAGCAGTACTACGCCGGA
GTGGTGTGGCGTCATCAGCT–3'

***Drosophila* Arl6IP1 Knockin ssDonor DNA for endogenous tagging sequence:**

5'–CAAAGGGCCTCGAAGATTATTAACGAGAAGATCCAGTGCGGCAAAAGGAAATTGCAAGGAGGCGGTAG
CGACTATAAAGATCACGACGGTGATTACAAAGATCATGATATTGACTACAAAGACGACGACGATAAGTGATA
AAGGAAAGCAACCAGATAAACTCATCACCATTGACCAAAAAATATAAA ACATGCCTAAGT–3'

***ARL6IP1* specific Homology arms for endogenous tagging sequence:**

ARL6IP1-HomologyArm1- Forward: 5'-ACCATATGAGCGCTGCAGATCTGAGCTCGTACATTGGAATGGCCA
AGAGGGGTACTAAAAATACAAAAATTAGCCAGGCGTGGCG-3'

ARL6IP1-HomologyArm1- Reverse: 5'-CTGCTGGCGCCGGCGCCGATCCTTCGTTTTCTTTCTTTTGT
GAGAAGTTTGTATCTCTCTTGGCCATTCCAATGTAC-3'

ARL6IP1-HomologyArm2-Forward: 5'- AGCATACATTATACGAAGTTATGAATTCTTCATCTGCTTTAATCAGT
GTGATTAATGC-3'

ARL6IP1-HomologyArm2-Reverse: 5'-TTTGCTGGCCTTTTGCTCACATGTCCTACTGTATACTATAGCTAATGT
CAGC-3'

**Double stranded donor DNA vector sequence for endogenously tagging Human ARL6IP1
(neomycin):**

5'–TCGCGCGTTTCGGTGATGACGGTGAAAACCTCTGACACATGCAGCTCCCGGAGACGGTCACAGCTTGTCT
GTAAGCGGATGCCGGGAGCAGACAAGCCCGTCAGGGCGCGTCAGCGGGTGTGGCGGGTGTGGGGCTGG
CTTAATATGCGGCATCAGAGCAGATTGTACTGAGAGTGCACCATATGAGCGCTGCAGATCTGAGCTCGTACA
TTGGAATGGCCAAGAGGGGTACTAAAAATACAAAAATTAGCCAGGCGTGGCGGCAGGCACCTGTAATCCCAG
CTACTCTACTTGGTAGGGTGAGGCAGGAGAATCGCTTGAACCTGGGAGGTGGAGGTTGCAGTGAACCGAGA
TTGTGCCATTGCACTCCAGCCTGGGCAAAAGAGTGAGACTTGTGCTGGGTGTGGTGGCTCACGCCCGTAAT
CCCAGCACTCTGGGAGGCTGAAGCAGGCGGATCACCTGAGATTGGGAGTTCGAGACCAGCCTGACTAACATG
GAGAAACCCCATCTCTACTAAAAATACAAAATTAGTCAGGCGTAGTGGCGCATGCCTGTAATCCCAGCTACTT
GGGTAGCTGAGGCAGGAGAATCGCTTGAACCTGGGAGGCGGAGGTTGCGGTGAGCCAAGATTGCGCCATTG
CACTCCAGCCTGGGCAACAAAAGTGAACTTTGTCTCAAAAAAAAAAAAAAAAAAGTAATAACCTTTAGCAGGT
TAATTGCTGCCTCCTTAATGTTGGGTTTTTTTTTATTTTAAGTGACTTCCTTACTATTGCTTCTGGACTAAACCA
ACATGGAATCATTTTGAAGTACATTGGAATGGCCAAGAGAGAGATAAACAACTTCTCAAACAAAAAGAAAA
GAAAAACGAAGATCCGGCGCCGGCGCCAGCAGCGGTGGAGGTGGATCTGACTCTAAAGAGAAGTCAGCTT
GTCCTAAGGACCCTGCCAAGCCACCTGCGAAGGCCCAAGTAGTCGGTTGGCCACCCGTGCGCAGCTATAGGA
AGAACGTGATGGTGTCTGTGAGAAGTCTAGCGGGGGGCCGAGGCTCCGGTGGCGGCTCTGGCGGATCT
GGTGGAGGCGGTGCTAGCTCCGCCGGCGACTACAAGGACCACGACGGCGATTATAAGGATCACGACATCGA
CTACAAAGACGACGATGACAAGGGCGCCGAGGCGGTTCTGGAGGCGGTTCTCCCGACAGGGTGAGGGCCG
TGAGCCACTGGAGCAGCTGAAGGCTGTGCCTTCTAGTTGCCAGCCATCTGTTGTTTGCCCCCTCCCCGTGCCTT
CCTTGACCCTGGAAGGTGCCACTCCCACTGTCCTTCTAATAAAAATGAGGAAATTGCATCGCATTGTCTGAGT

AGGTGTCATTCTATTCTGGGGGGTGGGGTGGGGCAGGACAGCAAGGGGGAGGATTGGGAAGACAATAGCA
GGCATGCTGGGGATGCGGTGGGCTCTATGGGTGACATAACTTCGTATAGCATACATTATACGAAGTTATGAT
CTGCGATCGCTCCGGTGGCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGGAG
GGGTGCGCAATTGAACCGGTGCTAGAGAAGGTGGCGCGGGGTAACTGGGAAAGTGATGTCGTGTACTGG
CTCCGCCTTTTTCCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCCGTGAACGTTCTTTTTCGCA
ACGGGTTTGGCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCCTTCACGCGCCCGCCGCCCTAC
CTGAGGCCGCCATCCACGCCGTTGAGTCGCGTTCGTGCCGCCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTGCC
GCCGTCTAGGTAAAGTTTAAAGTCTAGGTCGAGACCGGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGAC
TCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGCTCAACTCTACGTCTTTGTTTCGTTTTCTGTTCTGCGCCG
TTACAGATCCAAGCTGTGACCGGGCGCTACCTCGAGATTGAACAAGATGGATTGCACGCAGGTTCTCCGGCCG
CTTGGGTGGAGAGGCTATTCGGCTATGACTGGGCACAACAGACAATCGGCTGCTCTGATGCCGCCGTGTTCC
GGCTGTCAGCGCAGGGGGCGCCCGGTTCTTTTTGTCAAGACCGACCTGTCCGGTGCCCTGAATGAAGTGCAGG
ACGAGGCAGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTCCTTGCGCAGCTGTGCTCGACGTTGTCACTG
AAGCGGGAAGGGACTGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCTCATCTCACCTTGCTCCTG
CCGAGAAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCATTCTGA
CCACCAAGCGAAACATCGCATCGAGCGAGCACGTACTCGGATGGAAGCCGGTCTTGTCGATCAGGATGATCT
GGACGAAGAGCATCAGGGGCTCGCGCCAGCCGAACTGTTGCCAGGCTCAAGGCGCGCATGCCCGACGGCG
AGGATCTCGTCGTGACCCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGCTTTTCTGGATT
CATCGACTGTGGCCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGA
AGAGCTTGGCGGCGAATGGGCTGACCGCTTCCTCGTGCTTTACGGTATCGCCGCTCCCGATTGCGAGCGCATC
GCCTTCTATCGCCTTCTTGACGAGTTCTTCTAAACGCGTTAAATATCTTTATTTTCATTACATCTGTGTGTTGGT
TTTTGTGTGAATCGATAGTACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATA
GGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTCGCGGCATGGACGAGTAAGGTACCATAACT
TCGTATAGCATACATTATACGAAGTTATGAATTCCTCATCTGCTTTAATCAGTGTGATTAATGCAGCACCCATTG
CCCCGGGAACCGTTTCTGCTGTACTATCTGGATACTAAAATGTTACGGAAGTAGCTCTTTGTTCTCCCTCACTCT
GCCCTTAGTTAATAGAAATTCAGACTCGCCAAGTAAGGCTTCGTGCATAGTGTCTTCATGTGCGGTATAGTTGA
GCGCGTTCCTAGCAGTTGGCTTCATGGACAACCTATTAGTGTTTTGACTTTTCTTACCCAGCGTTAATTGAATTC
TTGCTTTTAGACAACCTCCTTTTGTAGTGGTGAACCTTGCCCTTAGTACAGTTCAAGTGAATCTGGATAATTG
TTCATCTTTGCTTAGCTTAGATACCATGTAGTGGTCTGTGGCTACAGGAAGCTGGTTCTGTCTGCTCCACAG
TCTGCTTAAAAAAGTGTCTGACTTCGTGAATATAGAGACCAAGTTTACCACTTCTGATGAAGAGACCAATTAAG
ATTCATTCCTCATTCTGTTTCTTCCAGTGGGAGAAGAGTCCCCATGAAATAAGATGAAACTGATTCCATGCAC
TAGTACATGTAGGCTTCTCCCTTGTCGAAAGCTTAGCAATTTGTAGGAACTTTGATCTTTTTGTCCAAGAAAA
GGAATGTCTGACAGGCTTAAGCTTCGTCCCCTTGCACTTAGACTCGAAGTTAGTAAATCCTTAAAGGCTTTTT
AATAGCAGACTTCCAAAAGATTGCATTTAGGATTTCTAGCATGCTTTAATTTAGATTTTCAGCTGACATTAGC
TATAGTATACAGTAGGACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCT
GGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAGAAAATCGACGCTCAAGTCAGAGGTGGCGAAAC
CCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTGCC
GCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGCGCTTTCTCATAGCTCACGCTGTAGGTATC
TCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGC
CTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGT
AACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCTAACTACGGCTAC
ACTAGAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTT
GATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTGTTTGCAAGCAGCAGATTACGCGCAGAAAAA
AAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAAACCTACGTTAAGG
GATTTTGGTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCTTTTAAATTAATAAATGAAGTTTAAATCAA
TCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATC
TGTCTATTTGTTTCATCCATAGTTGCCTGACTCCCCGTGCTGTAGATAACTACGATACGGGAGGGCTTACCATC
TGGCCCCAGTGCTGCAATGATACCGCGAGACCCACGCTACCGGCTCCAGATTTATCAGCAATAAACCAGCCA

GCCGGAAGGGCCGAGCGCAGAAGTGGTCCTGCAACTTTATCCGCCTCCATCCAGTCTATTAATTGTTGCCGGG
AAGCTAGAGTAAGTAGTTCCGCAGTTAATAGTTTGCGCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTC
ACGCTCGTCGTTTGGTATGGCTTCATTAGCTCCGGTCCCAACGATCAAGGCGAGTTACATGATCCCCATGT
TGTGCAAAAAAGCGGTTAGCTCCTTCGGTCTCCGATCGTTGTCAGAAAGTAAGTTGGCCGCGAGTGTATCACT
CATGGTTATGGCAGCACTGCATAATTCTTACTGTGTCATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGAGT
ACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTCAATACGGGATAA
TACCGCGCCACATAGCAGAACTTTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGGGCGAAAACTCTCAAGG
ATCTTACCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTCAGCATCTTTACTTTC
ACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATGCCGCAAAAAGGGAATAAGGGCGACACGGAA
ATGTTGAATACTCATACTCTTCTTTTCAATATTATTGAAGCATTATATCAGGGTTATTGTCTCATGAGCGGATA
CATATTTGAATGTATTTAGAAAAATAACAAATAGGGGTTCCGCGCACATTTCCCGAAAAAGTGCCACCTGAC
GTCTAAGAAACCATTATTATCATGACATTAACTATAAAAAATAGGCGTATCACGAGGCCCTTTCGTC-3'

**Double stranded donor DNA vector sequence for endogenously tagging Human ARL6IP1
(puromycin):**

5'-TCGCGCGTTTCGGTGATGACGGTGAAAACCTCTGACACATGCAGCTCCCGGAGACGGTCACAGCTTGTCT
GTAAGCGGATGCCGGGAGCAGACAAGCCCGTCAGGGCGCGTCAGCGGGTGTGGCGGGTGTGGGGCTGG
CTTAATATGCGGCATCAGAGCAGATTGTACTGAGAGTGCACCATATGAGCGCTGCAGATCTGAGCTCGTACA
TTGGAATGGCCAAGAGGGGTACTAAAAATACAAAATTAGCCAGGCGTGGCGGCAGGCACCTGTAATCCCAG
CTACTCTACTTGGTAGGGTGAGGCAGGAGAATCGCTTGAACCTGGGAGGTGGAGGTTGCAGTGAACCGAGA
TTGTGCCATTGCACTCCAGCCTGGGCAAAAAGAGTGAGACTTGTGCTGGGTGTGGTGGCTCACGCCCGTAAT
CCCAGCACTCTGGGAGGCTGAAGCAGGCGGATCACCTGAGATTGGGAGTTCGAGACCAGCCTGACTAACATG
GAGAAACCCCATCTCTACTAAAAATACAAAATTAGTCAGGCGTAGTGGCGCATGCCTGTAATCCCAGCTACTT
GGGTAGCTGAGGCAGGAGAATCGCTTGAACCTGGGAGGCGGAGGTTGCGGTGAGCCAAGATTGCGCCATTG
CACTCCAGCCTGGGCAACAAAAGTGAACTTTGTCTCAAAAAAAAAAAAAAAAAAGTAATAACCTTTAGCAGGT
TAATTGCTGCCTCCTTAATGTTGGGTTTTTTTTTATTTAAGTGACTTCCTTACTATTGCTTCTGGACTAAACCA
ACATGGAATCATTTTGAAGTACATTGGAATGGCCAAGAGAGAGATAAACAAACTTCTCAAACAAAAAGAAAA
GAAAAACGAAGGATCCGGCGCCGGCGCCAGCAGCGTGGAGGTGGATCTGACTCTAAAGAGAAGTCAGCTT
GTCCTAAGGACCCTGCCAAGCCACCTGCGAAGGCCCAAGTAGTCGGTTGGCCACCCGTGCGCAGCTATAGGA
AGAACGTGATGGTGTCTGTGAGAAGTCTAGCGGGGGGCCCCGAGGCTCCGGTGGCGGCTCTGGCGGATCT
GGTGGAGGCGGTGCTAGCTCCGCCGGCGACTACAAGGACCACGACGGCGATTATAAGGATCACGACATCGA
CTACAAAGACGACGATGACAAGGGCGCCGGAGGCGGTTCTGGAGGCGGTTCTCCCGACAGGGTGAGGGCCG
TGAGCCACTGGAGCAGCTGAAGGCTGTGCCTTCTAGTTGCCAGCCATCTGTTGTTTGCCCTCCCCCGTGCCTT
CCTTGACCCTGGAAGGTGCCACTCCCACTGTCCTTTCCTAATAAAATGAGGAAATTGCATCGCATTGTCTGAGT
AGGTGTCATTCTATTCTGGGGGGTGGGGTGGGGCAGGACAGCAAGGGGGAGGATTGGGAAGACAATAGCA
GGCATGCTGGGGATGCGGTGGGCTCTATGGGTGACATAACTTCGTATAGCATACATTATACGAAGTTATGAT
CTGCGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGGAG
GGGTCGGCAATTGAACCGGTGCCTAGAGAAGGTGGCGCGGGGTAACTGGGAAAGTGATGTCGTGTAAGTGG
CTCCGCCTTTTCCCGAGGGTGGGGGAGAACCGTATATAAGTGCAAGTAGTCGCCGTGAACGTTCTTTTTCGCA
ACGGGTTTGCAGGACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTCACGCGCCCGCCGCCCTAC
CTGAGGCCGCCATCCACGCCGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCC
GCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACCGGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGAC
TCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGCTTTGTTTCTGTTCTGCGCCG
TTACAGATCCAAGCTGTGACCGGCGCCTACCTCGAGATGACCGAGTACAAGCCCACAGTGCGGCTGGCCACC
AGGGACGATGTGCTAGAGCTGTGCGGACACTGGCCGCTGCCTTCGCCGATTACCCTGCCACCAGACACACC
GTGGACCCCGACAGACACATCGAGAGAGTGACCGAGCTGCAGGAACTGTTTCTGACCAGAGTGGGCCTGGA

CATCGGCAAAGTGTGGGTGGCCGATGATGGCGCCGCTGTGGCTGTGTGGACAACCCCTGAGTCTGTGGAAGC
CGGCGCTGTGTTGCGCGAGATCGGACCTAGAATGGCCGAGCTGAGCGGCTCTAGACTGGCTGCCAGCAGCA
GATGGAAGGCCTGCTGGCCCCCACAGACCTAAAGAGCCTGCCTGGTTTCTGGCCACCGTGGGCGTGTACCT
GACCACCAGGGCAAGGGACTGGGATCTGCTGTGGTGTCTGCCTGGCGTGGAAGCTGCTGAAAGGGCTGGCGT
GCCCCGCTTCTTGAAACAAGCGCCCCAGAAACCTGCCCTTCTACGAGAGACTGGGCTTCACCGTGACCGCC
GACGTGGAAGTGCCTGAGGGCCCTAGAACCTGGTGCATGACCAGAAAGCCTGGCGCCTGAACGCGTTAAAAT
ATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTGTGTGAATCGATAGTACTAACATACGCTCTCCATCAAAAC
AAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTCTC
GCGGCATGGACGAGTAAGGTACCATAACTTCGTATAGCATACATTATACGAAGTTATGAATTCTTCATCTGCTT
TAATCAGTGTGATTAATGCAGCACCCATTGCCCGGGAACCGTTTCTGCTGTACTATCTGGATACTAAAATGTT
ACGGAAGTAGCTCTTTGTTCTCCCTCACTCTGCCCTTAGTTAATAGAAATTCAGACTCGCCAAGTAAGGCTTCG
TGCATAGTGTCTTCATGTGCGGTATAGTTGAGCGCGTTCTTAGCAGTTGGCTTCATGGACAACCTATTAGTGT
TTGACTTTTCTTACCAGCGTTAATTGAATTCTTGCTTTTAGACAACTTCCTTTTGTAGTGGTGAACCTTGCCCT
TAGTACAGTTCAAGTGAATCTGGATAATTGTTTCATCTTTGCTTTAGCTTAGATACCATGTAGTGGTCTGTGGC
TACAGGAAGCTGGTTCTGTCTGCTTCCACAGTCTGCTAAAAAACTGTCTGACTTCGTGAATATAGAGACCAAG
TTTACCCTTCTGATGAAGAGACCAATTAAGATTCATTCTCTGTTTCTTCCAGTGGGAGAAGAGTCCCC
ATGAAATAAGATGAACTGATTCCATGCACTAGTACATGTAGGCTTCTCCCTTGTCGAAAGCTTAGCAATTTGT
AGGAACTTTGATCTTTTTGTCCAAGAAAAGGAATGTCTGACAGGCTTAAGCTTTCGTCCCCTTGCACTTAGAC
TCGAAGTTAGTAAATCCTTAAAGGCTTTTTAATAGCAGACTTCCAAAAGATTGCATTTAGGATTTCTAGCATGC
TTTTAATTTAGATTTTCTGCTGACATTAGCTATAGTATACAGTAGGACATGTGAGCAAAAGGCCAGCAAAAG
GCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAA
ATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCT
CCCTCGTGCGCTCTCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTGGGAAGCGTG
GCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCA
CGAACCCCCCGTTCAGCCCAGCGCTGCGCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACAC
GACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAG
TTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAG
TTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGGTGGTTTTTTGT
TTGCAAGCAGCAGATTACGCGCAGAAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGAC
GCTCAGTGGAACGAAAACCTCACGTAAAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTTCACCTAGATCC
TTTTAAATTAATAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAACTTGGTCTGACAGTTACCAATGC
TTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTGTTTCATCCATAGTTGCCTGACTCCCCGTCGTGTAG
ATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATACCGCGAGACCCACGCTCACCG
GCTCCAGATTTATCAGCAATAAACCAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCTGCAACTTTATCC
GCCTCCATCCAGTCTATTAATTGTTGCCGGAAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTGCGCAACGT
TGTTGCCATTGCTACAGGCATCGTGGTGTACGCTCGTCGTTTGGTATGGCTTCATTAGCTCCGTTCCCAAC
GATCAAGGCGAGTTACATGATCCCCATGTTGTGCAAAAAAGCGGTTAGCTCCTTCGGTCTCCGATCGTTGTC
AGAAGTAAGTTGGCCGAGTGTTATCACTCATGGTTATGGCAGCACTGCATAATTCTCTTACTGTCATGCCATC
CGTAAGATGCTTTTCTGTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAATAGTGTATCGGGCGACCGAGT
TGCTCTTGCCCGGCGTCAATACGGGATAATACCGCGCCACATAGCAGAACTTTAAAGTGCTCATCATTGGAA
AACGTTCTTCGGGGCGAAAACCTCTCAAGGATCTTACCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGTGC
ACCAACTGATCTTCAGCATCTTTTACTTTACCGAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATGCC
GCAAAAAGGGAATAAGGGCGACACGGAAATGTTGAATACTCATACTTCTCTTTTCAATATTATTGAAGCA
TTTATCAGGGTTATTGTCTCATGAGCGGATACATATTTGAATGTATTTAGAAAAATAACAAATAGGGGTTCCG
CGCATATTTCCCGAAAAAGTGCCACCTGACGTCTAAGAAACCATTATTATCATGACATTAACTATAAAAAATAG
GCGTATCACGAGGCCCTTTCGTC-3'