

| Name        | Backbone | Resistance | Insert site | Description                              | Plasmid map                                                                                                               |
|-------------|----------|------------|-------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Standard    | pET29b+  | kanamycin  | NdeI/XhoI   | NdeI - GENE - XhoI<br>- 6xHis - STOP     | <a href="https://benchling.com/s/seq-goAgZu6kU4aRIRxZmCsx/edit">https://benchling.com/s/seq-goAgZu6kU4aRIRxZmCsx/edit</a> |
| Nterm sfGFP | pET29b+  | kanamycin  | XhoI/XhoI   | NdeI - 6xHis -<br>sfGFP - GENE -<br>STOP | <a href="https://benchling.com/s/seq-YjjaGxPLksaKMILFeQca/edit">https://benchling.com/s/seq-YjjaGxPLksaKMILFeQca/edit</a> |

### Standard plasmid:

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#### Nterm sfGFP plasmid:

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gaggaaactatatccgat

| Constructs | DNA Sequences*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C3-A       | <p>ATCGGATGAAGCAATTAAACGCTTATTAGAGGAGCTGCGCGCGAGCACCGC<br/> CGAATTAAAGCGCGCGACCGCCAGCCTGCGTGCCATCACTGAAGAATTAAA<br/> AAAAAACCCTAGTGAAGATGCCTTAGTTGAACATAACCGTGCAATCGTGGA<br/> GCATAATGCGATTATTGTGGAACAAATCGTATCATTGCGGCCGTGCTGGAG<br/> GCAATCGTTGCGGAATTCATCCTGGCCAAGGCGCGTTTGCTTGTATGGGAA<br/> GCGCGTAAAAAAGGCAACCCGGAAGAAGTATTAGAGGCGGCGAAAAAAG<br/> CGCTGCGCGTCGCCGAAGAGGCAGCCAAAGCGGGCATCGAGGCGATTTTT<br/> AAAGCGGCGGCCGAAGCCGCACTTGAAATTGCCATGCGTTTGATTGATCTG<br/> GCCACCAAGAAAGGTGACCCGGATCTGGTACGTGAAGCCCAAAAAGTTGC<br/> AGAACGTGTTGCCGAGTTGGCGGATAAAAATGGCGATGAGGAAGTAAAC<br/> TGAAAGCGTATGCAGCAGCCGTGGCCGCAGAGATTATCCGTCTGATTGAAA<br/> CCTTAAAGCGTTCAGGTTCTTCGTATGAGGATATTCGTCAGACGCTGCGCGA<br/> AACTCTTGAAACGCATCATCGAGGAACTGAAACGCCGCGGCGTTGATAGCTC<br/> ACAGATCGTTTGGGCCATTATTTATGTCGCCGTGGCCGTCATGGGTGTGACT<br/> ATGGAACGCACAAGAGCGGGAATGAAGTGAAAGTCGTTATCAAAGGCCT<br/> GCACGAATCGCAGCAGGAAGAACTGCTGGAATTAGTCTTGCGTGCCGCAG<br/> AATTAGCTGGTGTCCGTGTCCGTATTGCTTTAAGGGCGATACCGTGACCAT<br/> CGTTGTGCGTGGA</p> |
| C3-A-nGFP  | <p>GGCAGCGGTAGCGGAAGCGGTTCTGGTTCGGGTAGTGGTTCCGGTAGCAG<br/> CGATGAAGCGATTAAACGCCTGCTGGAAGAACTGCGCGCGAGCACCGCGG<br/> AACTTAAACGTGCAACCGCAAGCTTGAGAGCGATCACCGAAGAATTGAAA<br/> AAGAACCCGAGCGAAGACGCGCTGGTTGAACATAACCGCGCGATTGTGGA<br/> ACACAACGCGATTATTGTTGAAAACAACCGTATTATTGCGGCGGTGCTCGA<br/> AGCCATTGTGGCGGAGTTTATCCTGGCGAAAGCGCGCCTGTTGGTGTGGGA<br/> AGCGCGTAAAAAGGGCAACCCGGAAGAAGTGTTAGAAGCGGCGAAGAAA<br/> GCTCTGCGTGTGGCAGAAGAAGCCGCCAAAGCGGGCATTGAAGCAATTTT<br/> TAAAGCGGCCGCCGAAGCAGCGCTGGAAATTGCGATGCGCCTCATTGATCT<br/> GGCCACCAAGAAAGGCGATCCGGATCTGGTGCGCGAAGCGCAGAAAGTTG<br/> CGGAACGTGTTGCCGAATTGGCGGATAAAAACGGCGACGAAGAAGTTAAA<br/> CTGAAAGCGTATGCGGCTGCTGTTGCGGCCGAAATTATTCGCCGCATCGAA<br/> ACGCTGAAACGCAGCGGCAGCAGCTATGAAGATATTCGTCAGACGCTGCG<br/> AGAAACCCTGGAACGCATTATTGAAGAACTCAAACGTCGCGGCGTGATAG<br/> CAGCCAGATTGTGTGGGCGATCATTTATGTTGCAGTGGCGGTGATGGGCGT<br/> GACCATGGAAACCCATAAAAGCGGTAACGAAGTGAAAGTGGTGATTAAAG<br/> GCCTGCATGAAAGCCAGCAAGAAGAAGTCTGGAAGTGGTGCTGAGAGCC</p>                            |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | GCAGAACTGGCCGGCGTGAGAGTGAGAATTCGCTTTAAAGGTGATACCGTG<br>ACGATTGTTGTGCGCGGCTAA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| C3-A-L267Q | AGCGATGAAGCGATTAAACGCCTGCTGGAAGAACTGCGCGCGAGCACCGC<br>GGAAGTGAACGTGCAACCGCAAGTCTGAGAGCGATAACCGAAGAATTGA<br>AAAAGAACCCGAGCGAAGATGCGCTGGTTGAACATAACCGCGCGATTGTG<br>GAACACAACGCGATTATCGTGGAACAACCGTATTATTGCGGCTGTGTTA<br>GAAGCCATTGTGGCGGAATTTATTCTGGCGAAAGCACGCCTGTTGGTGTGG<br>GAAGCGCGTAAAAAGGGCAACCCGGAAGAAGTGTTGGAAGCCGCGAAAA<br>AGGCGCTGCGTGTGGCAGAAGAAGCAGCAAAAGCCGGCATTGAAGCAATT<br>TTAAAGCGGCCGCCGAAGCGGCGCTGGAAATTGCGATGCGCCTTATTGAT<br>CTGGCGACCAAAAAGGGTGATCCGGATCTGGTGCGCGAAGCACAGAAAGT<br>TGCGGAACGTGTTGCCGAAGTGGCGGATAAAAACGGTGATGAAGAAGTTA<br>AACTGAAAGCGTATGCGGCGGCGGTTGCGGCCGAAATTATTCGCCGCATCG<br>AAACGCTGAAACGCAGCGGCAGCAGCTATGAAGATATTCGTCAGACCCTGC<br>GCGAAACCTGGAACGCATTATTGAAGAACTTAAACGTCGCGGCGTGATA<br>GCAGCCAGATCGTGTGGGCAATTATTTATGTTGCGGTGGCGGTTATGGGCGT<br>GACCATGGAAACCCATAAAAGCGGTAACGAAGTGAAAGTGGTGATTAAAG<br>GCCTGCATGAAAGCCAGCAGGAAGAATTACTGGAAGTGGTGCAGCGTGCG<br>GCAGAACTGGCCGGCGTGCGCGTTAGAATTCGCTTTAAAGGTGATACCGTG<br>ACGATTGTTGTGCGCGGC    |
| C3-A-L267S | AGCGACGAAGCGATTAAACGCCTGCTGGAAGAACTGCGCGCGAGCACCGC<br>GGAAGTGAACGTGCAACCGCAAGCTTGAGAGCGATACCGAAGAATTGA<br>AAAAGAACCCGAGCGAAGATGCGCTGGTAGAACATAACCGCGCGATTGTG<br>GAACACAACGCGATTATTGTTGAAAACAACCGTATTATTGCTGCGGTCCTGG<br>AAGCCATTGTGGCGGAATTTATTCTGGCGAAAGCACGCCTGTTGGTGTGGG<br>AAGCGCGCAAAAAGGGCAACCCGGAAGAAGTGTTGGAAGCAGCGAAAAA<br>GGCGCTGCGTGTGGCAGAAGAAGCCGCAAAAGCCGGCATTGAAGCAATTT<br>TTAAAGCGGCCGCCGAAGCGGCGCTGGAAATTGCGATGCGCCTTATTGATC<br>TGCGGACCAAAAAGGGTGATCCGGATCTGGTCCGCGAAGCGCAGAAAGTT<br>GCGGAACGTGTTGCCGAAGTGGCGGATAAAAACGGCGATGAAGAAGTTAA<br>ACTGAAAGCGTACGCGGCGGCGGTTGCGGCCGAAATTATTCGCCGCATCGA<br>AACGCTGAAACGCAGCGGCAGCAGCTATGAAGATATTCGTCAGACCCTGCG<br>CGAAACTCTGGAACGCATTATTGAAGAACTTAAACGTCGCGGCGTGATAG<br>CAGCCAGATTGTGTGGGCGATCATTTATGTTGCGGTGGCGGTTATGGGCGTG<br>ACCATGGAAACCCATAAAAGCGGTAACGAAGTGAAAGTGGTGATTAAAGG<br>CCTGCATGAAAGCCAGCAGGAAGAATTACTGGAAGTGGTGAGCCGCGCGG<br>CAGAACTGGCCGGCGTGCGTGTAAGAATTCGCTTTAAAGGTGATACGGTGA<br>CGATTGTTGTGCGTGGC |

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| C3-A_nHalo           | ATGGCGGAAATTGGCACCGGCTTTCCGTTTGATCCGCATTATGTGGAAGTGC<br>TGGGCGAACGCATGCATTACGTGGATGTGGGTCCGCGTGATGGCACTCCGG<br>TGCTGTTTCTGCATGGCAACCCGACCTCTAGCTATGTGTGGCGCAACATTAT<br>TCCGCATGTGGCGCCGACCCATCGCTGCATTGCGCCGGATCTGATTGGCATG<br>GGTAAAAGCGATAAACCGGATCTGGGCTATTTCTTTGATGATCACGTGCGCT<br>TTATGGATGCGTTTATTGAAGCGCTGGGTCTGGAAGAAGTCGTGCTGGTGAT<br>TCATGATTGGGGCAGCGCGCTGGGCTTTCATTGGGCGAAACGTAACCCGGA<br>ACGTGTAAAAGGCATCGCGTTCATGGAATTTATTCGCCCGATTCCGACCTGG<br>GATGAATGGCCGGAATTTGCGCGCGGAAACCTTTCAGGCGTTTCGTACCACC<br>GATGTGGGCCGCAAACCTGATCATTGATCAGAACGTCTTTATCGAAGGTACCC<br>TGCCGATGGGCGTTGTGCGCCCGCTGACTGAAGTTGAAATGGATCATTATC<br>GCGAACCGTTTCTGAACCCGGTGGATCGTGAACCGCTGTGGCGCTTTCCGA<br>ACGAACTGCCGATTGCGGGTGAACCGGCGAACATTGTGGCCCTGGTGGAA<br>GAATATATGGATTGGCTGCATCAGAGCCCGGTGCCGAAACTGCTGTTTTGGG<br>GTACCCCGGGTGTGCTGATTCCGCCGGCTGAAGCTGCAAGATTAGCGAAAA<br>GCCTGCCGAATTGCAAAGCCGTGGATATTGGCCCCGGGCCTGAACCTGCTGC<br>AGGAAGATAACCCGGATCTGATCGGCAGCGAAATTGCGCGTTGGCTGAGCA<br>CCCTGGAAATTAGCGGCGGCTCTGGTAGCGGAAGTGGTAGCGGTAGTGGTT<br>CAGGTAGCGGTAGCGGCAGCGGTAGCAGCGATGAAGCCATTAAACGCCTG<br>CTAGAAGAACTGCGCGCCAGCACCGCGGAACTGAAACGTGCAACCGCAAG<br>CTTGAGAGCGATTACCGAAGAAGTGAAGAAAGAACCCGAGCGAAGATGCGC<br>TGTTTGAACATAACCGCGCGATTGTGGAACACAACGCGATTATTGTTGAAA<br>ACAACCGTATTATTGCGGCGGTGCTGGAAGCGATTGTTGCGGAATTCATTCT<br>GGCGAAAGCGCGCCTGCTGGTGTGGGAAGCACGCAAAAAGGGCAATCCG<br>GAAGAAGTTCTGGAAGCGGCGAAAAAGGCGCTGCGTGTGGCAGAAGAAG<br>CCGCGAAAGCGGGCATTGAAGCAATTTTAAAGCAGCCGCCGAAGCGGCG<br>CTGGAAATCGCGATGCGTCTTATTGATCTGGCGACCAAAAAGGGCGATCCG<br>GATCTGGTGCCTGAAGCACAGAAAGTTGCAGAACGCGTGGCCGAACCTGGC<br>GGATAAAAACGGCGATGAAGAAGTGAACTGAAAGCGTATGCGGCCGCCG<br>TGGCGGCAGAAATTATTCGTGCGATCGAAACGCTGAAACGCAGCGGAAGC<br>AGCTACGAAGATATTCGCCAGACCCTGCGCGAAACTCTGGAACGTATTATC<br>GAAGAATTGAAACGTCGTGGCGTGGATTCAAGCCAGATTGTGTGGGCGATT<br>ATTTATGTTGCAGTGGCAGTGATGGGTGTGACCATGGAAACCCATAAAAGC<br>GGTAACGAAGTTAAAGTGGTGATTAAAGGTCTGCATGAAAGCCAGCAGGA<br>AGAAGTGTGGAAGTGGTGCTGCGTGCCGCAGAACTGGCAGGCGTGCGTG<br>TTAGAATCCGCTTTAAAGGCGATACCGTGACCATCGTGGTGCGCGGC |
| C3-A_nSpyC<br>atcher | GGCGCGATGGTGGATACCCTGAGCGGCCTGAGCAGCGAACAGGGTCAAAG<br>CGGTGATATGACCATTGAAGAAGATAGCGCGACCCATATTAAATTTAGCAA<br>CGTGATGAAGATGGCAAAGAATTAGCGGGCGCGACCATGGAACGTGCGTAT<br>TCGAGCGGCAAAACCATTAGCACCTGGATCAGCGATGGCCAGGTGAAAGA<br>TTTTTATCTGTATCCGGGCAAATATACCTTTGTTGAAACCGCGGCGCCGGAT<br>GGTTATGAAGTGGCGACCGCGATTACCTTTACCGTGAACGAACAGGGCCAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|                  | <p> GTTACCGTTAACGGTAAAGCGACTAAAGGCGATGCTCATATTGGCAGCGGC<br/> AGCGGTAGCGGTTCCGGTTCTGGTAGCGGAAGTAGCGATGAAGCGATTAAA<br/> CGCCTGCTGGAAGAACTGCGCGCGAGCACCGCGGAACTGAAACGTGCAAC<br/> CGCAAGCTTGAGAGCGATCACCGAAGAACTGAAAAAGAACCCGAGCGAA<br/> GATGCGCTGGTTGAACATAACCGCGCGATTGTGGAACACAACGCGATCATT<br/> GTCGAAAACAACCGTATTATTGCGGCGGTGCTGGAAGCCATTGTGGCGGAA<br/> TTTATTCTGGCAAAAGCGCGCCTGTTGGTGTGGGAAGCGCGTAAAAAGGGC<br/> AACCCGGAAGAAGTGTTGGAAGCGGCGA AAAAGGCGCTGCGTGTGGCAG<br/> AAGAAGCCGCGAAAGCGGGCATCGAAGCGATCTTTAAAGCCGCCGCCGAA<br/> GCTGCGCTGGA AATTGCGATGCGTCTGATTGATCTGGCAACCAAAAAGGGT<br/> GATCCGGATCTGGTGCGCGAAGCGCAGAAAGTTGCGGAACGTGTTGCCGA<br/> ACTGGCGGATAAAAACGGCGACGAAGAAGTTAAACTGAAAGCGTATGCGG<br/> CTGCGGTTGCGGCCGAAATTATTCGCCGCATTGAAACGCTGAAACGCTCTG<br/> GCAGCAGCTATGAAGATATTCGTCAGACGCTGCGCGAAACCCTGGAACGCA<br/> TTATCGAAGAATTGAAAAGACGCGGCGTGGATAGCAGCCAGATTGTGTGGG<br/> CGATTATTTATGTTGCGGTGGCGGTTATGGGCGTTACGATGGAAACCCATAA<br/> AAGCGGTAACGAAGTGAAAGTGGTGATTAAAGGCCTGCATGAAAGCCAGC<br/> AGGAAGAACTGCTGGA ACTGGTGCTGCGTGCGGCAGAACTGGCAGGCGTG<br/> CGTGTTAGAATTCGCTTCAAAGGTGATACCGTGACCATCGTGGTGCGTGGC </p> |
| C3-A_nSpyT<br>ag | <p> GCGCATATCGTCATGGTTGATGCCTACAAACCAACCAAGGGTTCCGGCTCT<br/> GGAAGCGGAAGTGGCAGCGGCAGTGGCTCGTCGGATGAAGCTATTAAACG<br/> CTTGCTTGAAGAATTGCGCGCCAGTACCGCTGAACTGAAACGTGCGACCGC<br/> GAGCCTGCGCGCCATCACAGAAGAACTTAAAAAAAACCCGTCCGAAGACG<br/> CACTGGTGGAACATAACCGCGCGATTGTGGAACATAATGCAATTATTGTTGA<br/> AAATAACCGCATTATCGCTGCGGTTCTGGAAGCGATTGTTGCGGAATTTATC<br/> TTGGCGAAAGCACGTCTGCTGGTGTGGGAGGCGCGTAAAAAGGGTAACCC<br/> GGAAGAGGTTCTTGAAGCAGCCAAAAAAGCTTTGCGTGTGGCAGAAGAAG<br/> CGGCCAAAGCGGGCATCGAAGCAATTTTAAAGGCCGCGGCTGAGGCAGCA<br/> CTGGA AATTGCCATGCGTCTGATCGATCTGGCAACGAAAAAGGGTGATCCG<br/> GATCTTGTGCGTGAGGCTCAGAAAGTGGCCGAACGTGTCGCTGAGCTGGC<br/> TGATAAGAATGGGGATGAGGAGGTGAACTGAAGGCGTATGCGGCGGCGG<br/> TAGCCGCGGAAATTATTCGCCGCATTGAAACATTAAACGCTCGGGGTCAA<br/> GCTACGAGGATATTCGCCAAACCTTACGTGAAACGCTGGAACGCATTATTG<br/> AGGAATTGAAACGTGCTGGAGTTGACTCTAGCCAAATCGTATGGGCCATTAT<br/> CTATGTTGCCGTGGCGGTGATGGGTGTTACGATGGAACGCATAAGTCGGG<br/> GAACGAGGTTAAAGTGGT CATCAAAGGCCTGCACGAGAGTCAGCAGGAAG<br/> AGCTGCTGGA ACTGGTTTTACGCGCGGCGGAATTAGCGGGCGTGCGCGTAC<br/> GTATCCGTTTCAAAGGAGATACAGTAACCATTGTAGTCCGTGGT </p>       |

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| C2-B- $\alpha$ 40<br>(T~1)  | ATGCTGCGCATTGAAATCGAAACGGAAAACGAAGATATGCCGGCGGTGGA<br>AGCGATGCTGGCGGCGCTGAGCAAGAAAGTGAAAGAAGTCTGAAGTGACC<br>ATTCGCGCGCCGGAATGGGATGAAGAAGGCGTTAAACATCTGGCCAAAGC<br>GTATGAAGCGCTGGCGAAGAACGCGGAATATGCGAAACTGACCGTTGAAG<br>GCCTGCATATTAAACAGCAGCGCCAGCTGTATCGCGATGTTTCGCGAAACCT<br>CCAAGAAACAGGGCGTGGAACCGAAATTGAAGTGGAAGGCGATACCGTT<br>ACCATTGTGGTGCGCGAA                                                           |
| C2-B- $\alpha$ 30<br>(T1~3) | ATGCTGCGCATTGAAATTAGCGGCGAACGCGAAGAAGTGGTGGCGGTTCTG<br>AAAGGCATTGCGGAAACCTTTGCAGAAACCAACGAGAAATTTGCGGCAGT<br>GCTGAAAACCATTGCCGAATTTGTGGCGCGCAGCCCGCTGGCGGAAGTGA<br>CTATTCGTATTGAACGCACCCAGATGAACTGACCATTACCCTGGAAGGTCT<br>GCATATTAAACAGCAGCGCCAGCTGTATCGCGATGTGCGCGAAACCAGCAA<br>GAAACAGGGCGTCGAAACCGAAATTGAAGTGGAAGGCGATACCGTTACCA<br>TTGTGGTGCGTGAA                                                             |
| C2-B- $\alpha$ 20<br>(T~3)  | CCGACCCTGCGCGTGGAATTGAAGGCCCGGCTGCAGATGTGGCAGCACT<br>GCTGCGTGGTGTTGCAGAAATTAGCGGCGGAACGCGCACCGAAACTGGCGC<br>CAGTGGTGGCAGTTATTGCAGATTTTGTGGCGAGCCGCCCGGGTCCGGTGA<br>GAGTTAGAGTTGAAATGGGTGATGGCGTGCTGCGGGTGGTGCTGGAAGGC<br>CTGCATATTAAACAGCAGCGCCAGCTGTATCGCGATGTGCGCGAAACCAGC<br>AAAAAGCAGGGCGTTGAAACCGAAATCGAAGTGGAAGGTGATACCGTGAC<br>CATTGTGGTTCGCGAAAGCGGCAGCTGGAGCGGC                                          |
| C2-B- $\alpha$ 13<br>(T~9)  | ATGGGCGAAGTGCGCCTGGATGTGCGCGTGATATTGATGCGCCGACCGAA<br>GAAGATGCGGCGGCGGTGATGCGTGCGATTATGGAAGGCATTGTGGCGGCT<br>GCGAAAGCGGTGAAAGAAATTGGCCTGCGCTTTCGCTTGATCTGACCCTG<br>CGCGATGCGACTGCAGCAGAACTGCGTGAAGTGGTGCATGATTGAAGA<br>ATTGGTGAAAATTGGGGCCGAAGTCCGTGTGGTTGTGGAAGGTCTGAGCCC<br>GAAACAGCAGCGTCAGCTGTATCGCGATGTGAGAGAAACCAGCAAAAAGC<br>AGGGCGTGGAACCGAAATTGAAGTTGAAGGTGATACCGTGACCATTGTTG<br>TTCGCGAAGGCAGCTGGAGCGGC |
| C2-B- $\alpha$ 10<br>(T~16) | GCGACCGTGATGTGACCATTGCGGCGATCTGGCAGCTGCAGATGTGGCG<br>GCACTGGCAGAAGCAGTGATGCGCGAAGTGGGCAGAATTGGCGCGAGACT<br>GGAAGTACCCTGGATCTGCCGGCGGATATTACCCCGGAAGATCTGCGCCG<br>CATTGTGGAAGCGCTGATGGAATGTGCGAAAAAGACCGGCCTGGCCCGCC<br>TGACACTGAGAGGTTTGAGCCCCAAAACAGCAGCGTCAGCTGTATCGCGAT<br>GTGCGTGAAACCAGCAAAAAGCAGGGCGTGGAACCGAAATTGAAGTGG<br>AAGGCGATACCGTGACGATTGTGGTGCGGGAAGGTAGCTGGAGCGGC                                 |
| C2-B- $\alpha$ 8<br>(T~25)  | ATGAAAGGCACCTTCGTTTCAGGAAGGCCCGATTCCGGCGAGTAAAGCGAC<br>CACCGCGGTGAAGAACTGACCGAACTGGCGAAAGAAGTGGGCTTCGATG<br>AACTGGATGTGACCCTGCAGCTGAGCAGCGATAACACCGAAGAAGAAGT                                                                                                                                                                                                                                                     |

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|                                | AAAGAACTGGCCAAAGCGTTAGTGGAAGTGCAGCTGGCGGTGGGCGCGAA<br>AATTACCTTAGTGGGCGTGAGCCCGAAACAGCAGCGCCAGCTGTATCGCGA<br>TGTGCGTGAAACCAGCAAGAAACAGGGCGTCGAAACCGAAATTGAAGTGG<br>AAGGCGATACCGTTACCATTGTGGTGCGCGAAGGCAGCTGGAGCGGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| C2-B- $\alpha$ 8-2<br>(T~25)   | ATGAGCGAACTGAACATTACCCTGAAGAACCTGCCGGATGAAGTGGCGCT<br>GGATATTGTGAAAGAAGTGTGCAAAAGCCTGATCAAACATGGCGTGAAAG<br>CGAAAGTTAACATCACCTTAGAAGGCCTGAGCGTTGAGACGATTATCCAGA<br>TTTACAAGGACCTGATTAAGCTGAGCAAAGAAACCGGCAGCGAAGTGACC<br>CTGACCGTGAAAGGCCTGCATATTAAACAGCAGCGCCAGCTGTATCGCGAT<br>GTGCGCGAAACCAGCAAGAAACAGGGCGTCGAAACCGAAATCGAAGTGG<br>AAGGCGATACCGTTACCATTGTGGTGCGTGGAAGGCAGCTGGAGCGGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| C2-B- $\alpha$ 8-3<br>(T~25)   | ATGAAGAAAATTAAAGTCAAAGCGGAAGCGAGCACCGTGGAAGAACTGA<br>AAATTCTGTGCGATGCGTTAAAAGCGATTGTTAAAGCGGCGCTGAAAGAAA<br>ACGAGAAACTGCAGGCGGTGGCGGAAACCATTCTGGATTTTGTGAAAAGC<br>CTGGGCAAACCGCTGAGCATTGAGCTGGTGATCGAAGATAACAAAATTGAG<br>ATCACCATTAAAGGCCTGCACATCAAACAGCAGCGCCAGCTGTATCGCGAT<br>GTGCGTGAAACCAGCAAGAAACAGGGCGTCGAAACCGAAATTGAAGTGG<br>AAGGCGATACCGTTACCATTGTGGTGCGCGAAGGCAGCTGGAGCGGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| C2-B- $\alpha$ 20_n<br>MCherry | ATGGTGAGCAAAGGTGAAGAAGATAACATGGCGATTATTAAAGAATTTATG<br>CGCTTTAAAGTGCACATGGAAGGCAGCGTGAACGGCCACGAATTTGAAATT<br>GAAGGGGAAGGAGAAGGTGCCCCGTATGAAGGCACCCAGACCGCAAAAC<br>TGAAAGTGACCAAAGGCGGCCCCGCTGCCGTTTGCGTGGGATATTCTGAGCC<br>CGCAGTTTATGTATGGCAGCAAAGCGTATGTGAAACATCCGGCGGATATCCC<br>GGATTATCTGAAACTGAGCTTTCGGAAGGCTTTAACTGGGAACGCGTTAT<br>GAACTTTGAAGATGGCGGCGTGGTGACCGTGACCCAGGATAGCAGCTTACA<br>GGATGGCGAATTCATTTATAAAGTGAAACTGCGCGGCACCAACTTTCGAG<br>CGATGGCCCCGGTGATGCAGTGCAGAACCATGGGCTGGGAAGCTAGCACCG<br>AACGCATGTATCCGGAAGATGGTGCGCTGAAAGGCGAAATTAAACAGCGCC<br>TGAAACTTAAAGATGGGGGCCATTATGATGCGGAAGTGAAAACACGTATA<br>AAGCGAAAAAGCCGGTGCAGCTGCCGGGCGCGTATAACGTGGATATTAAAC<br>TGGATATCCTGAGCCATAATGAAGATTACACCATTGTGGAACAGTATGAACG<br>CGCGGAAGGTCGTCATAGCACGGGCGGCATGGATGAACTGTATAAAGGTGG<br>TTCAGGCGGTTCTGGTGGTAGCGGTGGAAGCGGAGGAAGCCCAACCCTGA<br>GAGTGGAATCGAAGGCCCGGCTGCAGATGTTGCGGCGCTGCTGAGAGGT<br>GTGGCAGAATTAGCGGCAGAACGTGCGCCGAAACTGGCGCCGGTGGTTGC<br>AGTTATTGCAGATTTTGTGGCAAGCCGCCCGGGTCCGGTGAGAGTTCGTGT<br>TGAAATGGGTGATGGCGTGTTACGCGTGGTGCTGGAAGGCCTGCATATCAA<br>ACAGCAGCGCCAGCTGTATCGCGATGTGCGCGAAACCAGCAAAAAGCAGG<br>GCGTGGAACCGAGATTGAAGTAGAAGGCGATACCGTTACCATCGTGGTTC<br>GCGAAAGC |

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| C2-B- $\alpha$ 10_n<br>MCherry | ATGGTGAGCAAAGGTGAAGAAGATAACATGGCGATTATTAAAGAATTTATG<br>CGCTTTAAAGTGCACATGGAAGGCAGCGTGAACGGTCATGAATTTGAAATT<br>GAAGGCGAAGGTGAAGGCCGCCCGTATGAAGGCACCCAGACCGCGAAACT<br>GAAAGTGACCAAAGGCGGCCCGCTGCCGTTTGCGTGGGATATTCTGAGCCC<br>GCAGTTTATGTATGGCAGCAAAGCGTATGTGAAACATCCGGCGGATATCCCG<br>GATTATCTGAAACTGAGCTTTCCGGAAGGCTTTAACTGGGAACGCGTGATG<br>AACTTTGAAGATGGCGGCGTGTTGACCGTGACCCAGGATAGCAGCTTACAG<br>GATGGCGAATTCATTTATAAAGTCAAACCTGCGCGGCACCAACTTTCCGAGC<br>GATGGCCCCGGTGATGCAGTGCAGAACCATGGGCTGGGAAGCTAGCACCGA<br>ACGCATGTATCCGGAAGATGGTGCGCTGAAAGGCGAAATTAAACAGCGCCT<br>GAAACTTAAAGATGGGGGCCATTATGATGCGGAAGTTAAAACACGTATAA<br>AGCGAAAAAGCCGGTGCAGCTGCCGGGTGCGTATAACGTGGATATTAACT<br>GGATATCCTGAGCCATAACGAAGATTATACCATTGTGGAACAGTATGAACGC<br>GCGGAAGGTTCGTCATAGCACGGGCGGCATGGATGAATTATATAAAGGCGGT<br>TCTGGTGGTTCCGGTGGTAGCGGTGGAAGCGGTGGTTCTGCAACCGTGCAT<br>GTGACCATTTCGCGGCGATCTGGCGGCTGCAGATGTTGCGGCACTGGCAGAA<br>GCAGTGATGCGTGAAGTGGGCCCGCATTGGCGCTAGACTGGAACCTGACCCT<br>GGATCTGCCGGCAGATATTACCCCGGAAGATCTGCGCCGCATCGTTGAAGC<br>GCTGATGGAATGCGCCAAAAAGACCGGCCTGGCGCGTCTGACGTTACGTG<br>GCTTAAGCCCGAAACAGCAGCGTCAGCTGTATCGCGATGTGCGTGAAACCA<br>GCAAAAAGCAGGGCGTGGAACCGAAATCGAAGTGGAAGGCGATACCGTT<br>ACCATCGTGGTTCGCGAA |
| C2-B- $\alpha$ 8_nM<br>Cherry  | ATGGTGAGCAAAGGGGAAGAAGATAACATGGCGATTATTAAAGAATTTATG<br>CGCTTTAAAGTGCACATGGAAGGCAGCGTGAACGGCCATGAATTTGAAATT<br>GAAGGTGAAGGCGAAGGCCGCCCGTATGAAGGCACCCAGACGGCGAAAC<br>TGAAAGTGACCAAAGGCGGCCCGCTGCCGTTTGATGGGATATTCTGAGCC<br>CGCAGTTTATGTATGGCAGCAAAGCGTATGTGAAACATCCGGCAGATATCCC<br>GGATTATCTGAAACTGAGCTTTCCGGAAGGCTTTAACTGGGAACGCGTGAT<br>GAACTTTGAAGATGGCGGCGTGTTGACCGTGACCCAGGATAGCAGCTTGC<br>AGGATGGCGAATTCATTTATAAAGTCAAACCTGCGCGGCACCAACTTTCCGA<br>GCGATGGCCCCGGTGATGCAGTGCAGAACCATGGGCTGGGAAGCTAGCACC<br>GAACGCATGTATCCGGAAGATGGTGCGCTGAAAGGCGAAATTAAACAGCG<br>CCTGAAACTTAAAGATGGGGGCCATTATGATGCGGAAGTTAAAACCACTTA<br>TAAAGCGAAAAAGCCGGTGCAGCTGCCGGGCGCGTATAACGTGGATATTAA<br>ACTGGATATCCTGAGCCATAACGAAGATTATACCATTGTGGAACAGTATGAA<br>CGCGCGGAAGGTCGTCATAGCACGGGCGGCATGGATGAACTGTATAAAGGT<br>GGTAGTGGTGGATCGGGTGGTAGCGGCGGAAGCGGTGGTAGCATGAAAGG<br>TACCTTTGTTTCAGGAAGGCCCGATTCCGGCGTCAAAAGCCACCACCGCAGT<br>GAAAAAGCTGACCGAACTGGCGAAAGAAGTGGGCTTTGATGAACTGGATG<br>TGACCCTGCAGCTGAGCAGCGATAACACCGAAGAAGAAGTGAAGAAGTGA<br>GCCAAAGCGCTGGTTGAACTGCAGCTGGCCGTGGGCGCGAAATTACCTT<br>GGTGGGTGTGTCTCCGAAACAGCAGCGCCAGCTGTATCGCGATGTGCGTGA                                                                                    |

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|                                   | AACCAGCAAAAAGCAGGGCGTGGAACCGAAATCGAAGTGGAAGGTGAT<br>ACCGTTACCATCGTGGTTCGCGAA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| C2-B<br>B4-Cdynorph<br>inA-binder | ATGAAAGGCACCTTTGTGCAGGAAGGCCCGATTCCGGCGAGCAAAGCAAC<br>CACTGCGGTGAAAAAGCTGACGGAAGTGGCGAAAGAAGTGGGCTTTGATG<br>AACTGGATGTGACCCTGCAGCTGAGCAGCGATAACACCGAAGAAGAATTG<br>AAAGAATTAGCGAAAGCGCTGGTTGAACTGCAGTTGGCGGTGGGCGCGAA<br>AATTACCTGGTGGGTGTTAGCCCGAAACAGCAGCGCCAGCTGTATCGCGA<br>TGTTCTGTGAAACCAGCAAAAAGCAGGGCGTGGAACCGAAATTGAAGTAG<br>AAGGCGATACCGTGACCATTGTGGTGCGAGAAGGTGGTTCGGGTGGTAGC<br>GGTGGTTCTGGTGGAAGCGGAGGAAGCATGAGCCCGGAAGAACGCGAACT<br>GGCGGAACGCAACCTGCGTGAAGCTCGTAAAAACGGCTCTCCGCTGGTAC<br>CGAATTGGAACGCCTGAAAGAAGTGAAGCCACTGCAGGCGGCGGGCGTTA<br>GTGAACCTGGCGGTTGCTGAACTGAGAGGCAACGAACGCGCTGAAGAAGT<br>GGCCCGCCGCGCCAAAGAAGTTGCAGATGAAGATCCGCTGCGTGCTGCTG<br>CCCTGATTAACGCGGCAGCTGCAGAATTAGATGGCAACCCGCTGGCGCGTG<br>AACTGGTGAGGGCAGTTGAAGAAGATGCGCATCCGCTTGTTTCGCGCGGCG<br>CTGATCAACCTGGCAGTGGCAGAACTTGATGGCCGTGAAGACCCGGATCTG<br>CGCAGAGTGATTGAAGCGACCCGCAAAGGTACCATTACCGATGAAGAAGC<br>GCGCGAAGTGATCGAACGTGCGTATCGTGAA                                                                                                                                                                                                                                                                                                                                                        |
| C2-B- $\alpha 8$ _cA<br>POE3      | ATGAAAGGCACCTTTGTTTCAGGAAGGCCCGATTCCGGCGAGCAAAGCCAC<br>CACCGCGGTGAAAAAGCTGACCGAACTGGCGAAAGAAGTGGGCTTTGATG<br>AACTGGATGTCACCCTGCAGCTGAGCTCTGATAACACCGAAGAAGAAGTGA<br>AAAGAATTGGCAAAAGCACTGGTGGAACTTCAGCTGGCGGTGGGCGCGAA<br>AATTACCTGGTTGGCGTGAGCCCGAAACAGCAGCGCCAGCTGTATCGCGA<br>TGTTGCGTGAAACCAGCAAAAAGCAGGGCGTGGAACCGAAATCGAAGTG<br>GAAGGCGATACCGTGACCATTGTGGTGAAGAGAAGGTTTCAGGTAGCGGAAG<br>CGGCTCTGGTTCGGGGAGCGGTAGTGGTAGCAAAGTTGAACAGGCGGTTG<br>AAACGGAACCGGAACCTGAGCTGCGTCAGCAGACCGAATGGCAGAGCGG<br>CCAACGTTGGGAACTGGCACTTGGCCGCTTTTGGGATTATCTGCGTTGGGT<br>GCAGACCCTGAGCGAACAGGTCCAGGAAGAAGTCTGAGCAGCCAGGTG<br>ACCCAGGAAGTGCCTGCGCTGATGGATGAAACCATGAAAGAAGTAAAGC<br>GTATAAAAGCGAACTCGAAGAACAGCTGACCCCGGTGGCTGAAGAAACCC<br>GTGCGCGTCTGAGCAAAGAAGTGCAGGCTGCGCAGGCTAGACTGGGTGCG<br>GATATGGAAGATGTGTGCGGTGCGCTGGTGCAGTATCGTGGCGAAGTGCAG<br>GCGATGTTGGGTCAGAGCACGGAAGAAGTGCAGCGTGCGTCTGGCTAGCCA<br>TCTGCGCAAAGTGCCTAAACGCCTGCTGCGCGATGCGGATGATCTGCAGAA<br>ACGTCTGCGCGTTTATCAGGCGGGCGCCCGCAAGGAGCAGAAAGAGGTT<br>TGAGCGCGATTCTGTGAACGCCTGGGCCCGCTGGTTCGAACAGGGTAGGGTT<br>AGAGCAGCAACTGTTGGCAGCCTGGCGGGCCAGCCTTTGCAGGAAAGAGC<br>ACAAGCATGGGGTGAACGTCTGCGCGCGCGCATGGAAGAAATGGGCAGCC<br>GTACCAGAGATCGCTTGGATGAAGTTAAAGAAGAGGTTGCGGAAGTGCAGC<br>GCCAAAGTGAAGAGCAGGCCAGCAGATTGCGCTGCAAGCCGAAGCGTT |

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|                                             | TCAGGCGCGTTTGAAGAGCTGGTTTGAACCGCTGGTTGAAGATATGCAGCG<br>TCAGTGGGCGGGTCTGGTAGAAAAAGTGCAAGCGGCGGTCCGTACCAGCG<br>CTGCACCGGTACCAAGCGATAACCAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| C2-B- $\alpha$ 20_n<br>GFPnb                | CCGACCCTGCGCGTGGAATTGAAGGCCCGGCAGCAGATGTGGCAGCACT<br>GCTGCGTGTTGTTGCAGAATTAGCGGCGGAACGCGCACCGAACTGGCGC<br>CAGTTGTTGCGGTTATTGCCGATTTTGTGGCGAGCCGCCCGGGTCCGGTGA<br>GAGTTCGTGTTGAAATGGGTGATGGTGTGCTGCGCGTTGTGCTGGAAGGCC<br>TGCATATTAAACAGCAGCGCCAGCTGTATCGTGATGTGCGCGAAACCAGCA<br>AAAAGCAGGGCGTTGAAACGGAAATCGAAGTGGAAGGTGATACCGTGACC<br>ATTGTGGTTCGTGAAGGTGGTAGCGGTGGAAGCGGAGGGAGTGGTGGATC<br>TGGAGGCTCAGTTCAGCTGGTTGAAAGCGGGGGAGCGTTAGTGCAGCCAG<br>GCGGTTCCCTTACGTTTAAGCTGCGCCGCGAGCGGTTTTCCGGTTAACCGCT<br>ATAGCATGCGCTGGTATCGCCAGGCACCGGGTAAAGAACGTGAATGGGTTG<br>CAGGTATGAGCAGCGCGGGTGATCGCAGCAGCTATGAAGATTCGGTGAAAG<br>GCCGCTTTACCATTAGCCGCGATGATGCGCGCAACACGGTATATCTGCAGAT<br>GAACTCCCTGAAACCGGAAGATACCGCGGTGTATTATTGCAACGTTAACGT<br>GGGCTTTGAATATTGGGGCCAGGGCACCCAGGTGACCGTGAGCAGC |
| C2-B- $\alpha$ 20_n<br>GFP_cSortili<br>n-ET | GGCGGTTCTGGTGGATCAGGTGGTAGCGGTGGAAGCGGGGGATCTCCAAC<br>CCTGCGTGTGGAATTGAAGGTCCGGCAGCCGATGTGGCGGCACTGTTGA<br>GAGGTGTTGCTGAATTGGCCGCGGAACGCGCACCGAACTGGCGCCAGTT<br>GTGGCTGTTATTGCAGATTTTGTGGCGAGCCGCCCGGGCCCGGTAAGAGTT<br>AGAGTTGAAATGGGAGATGGCGTGCTGCGCGTAGTGCTGGAAGGCCTGCA<br>TATTAAACAGCAGCGCCAGCTGTATCGCGATGTGCGCGAAACTAGTAAAAA<br>GCAGGGCGTGGAAGCTGAAATCGAAGTCGAAGGTGATACCGTGACCATTG<br>TTGTGAGAGAAGGTGGATCGGGAGGAAGTGGAGGGAGCGGAGGATCTGG<br>CGGATCCAGCTTTCTGCTGAAACATGCGGTGCGCGTGATTGAACGCCTGCT<br>CGAAGAAGGTAATGTGGAAGTGGCCGAAAAATGGGTGGAACAGCTGAAAC<br>GTCTGGCGCATGCACAGCGTGATCCGGAAGCACTGCGTAGAGCGGAAGAA<br>CTGGAAGAAATTGTGGAAGAGCTG                                                                                                                                           |
| C2-B- $\alpha$ 10_n<br>GFP_cSortili<br>n-ET | GGAGGAAGCGGTGGTTCGGGTGGAAGCGGAGGATCTGGTGGTTCCGCAAC<br>CGTGCGATGTAAACATTGCGGGCGATCTGGCGGCTGCTGATGTGGCAGCGTT<br>GGCTGAAGCAGTTATGCGTGAAGTGGGCCGCATTGGGGCGCGCTTGGAAC<br>TGACCTTGATCTGCCAGCAGATATTACCCCGGAAGATCTGCGCCGCATCGT<br>TGAAGCGCTGATGGAATGTGCGAAGAAAACCGGCCTGGCGCGTCTGACCC<br>TGAGGGGTCTAAGCCCAAAACAACAGCGTCAGCTGTATCGCGATGTTTCGCG<br>AAACCAGCAAAAAGCAGGGTGTGGAACCGAAATCGAAGTGGAAGGCGA<br>TACCGTGACCATTGTTGTGAGAGAAGGTGGTAGCGGTGGCAGTGGTGGATC<br>AGGTGGATCGGGCGGAAGCTCTTTTCTGTTGAAACACGCGGTTCTGTGAT<br>TGAACGCCTGCTGGAAGAAGGCAACGTTGAACTGGCGGAAAAATGGGTGG<br>AGCAGCTGAAAAGGCTGGCACATGCCAGCGTGATCCGGAAGCACTGCGT<br>CGTGCGGAAGAATTAGAAGAAATTGTTGAAGAAGT                                                                                                                             |

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| C2-B- $\alpha$ 8_nGFP_cSortilin-ET | GGCGGGAGTGGTGGTAGCGGCGGTTTCAGGTGGTTCTGGAGGCAGCATGAAAGGCACCTTCGTTTCAGGAAGGCCCGATCCCGGCTTCTAAAGCGACCACCGCGGTGAAAAAGCTGACCGAACTGGCCAAAGAAGTGGGCTTTGATGAACTGGATGTGACCCTTCAGCTGAGCAGCGATAACACCGAAGAAGAACTGAAAGAACTAGCGAAAGCGCTGGTAGAACTGCAGCTTGCCGTGGGCGCGAAAAATTACCCTGGTGGGTGTGAGCCCGAAACAGCAGCGTCAGCTGTATCGTGATGTGCGTGAAACCAGCAAAAAGCAGGGGCGTGGAACGGAAATCGAAGTGGAAGGCGATACCGTGACCATTGTGGTGAGAGAAGGCGGAAGCGGAGGATCTGGTGGATCGGGTGGCAGTGGTGGCTCAAGCTTTCTGCTGAAACATGCGGTGCGCGTGATTGAACGCCTGCTGGAAGAAGGCAACGTGGAATTAGCGGAAAAATGGGTCGAACAGCTGAAAAGGCTGGCCCATGCGCAGCGTGATCCGGAAGCACTGCGTCGTGCTGAAGAATTAGAAGAAATTGTGGAGGAACTG                                                                                                                                                                                     |
| C2-B- $\alpha$ 20_nGFP_cIGF2R-ET   | GGTGGCTCGGGTGGTAGCGGAGGATCTGGTGGTTCTGGTGGATCGCCAACCCTGAGAGTGGAATTGAAGGCCCGCGGCAGATGTGGCGGCTCTGTTGAGAGGTGTTGCTGAATTGGCCGCAGAACGCGCACCGAAACTGGCGCCTGTGGTTGCGGTTATTGCAGATTTTGTGGCTAGCCGTCCGGGGCCCGGTGAGAGTAAAGTAGAAATGGGTGATGGCGTGCTGCGTGTTGGTGCTGGAAGGCCTGCATATTAAACAGCAGCGCCAGCTGTATCGCGATGTGCGCGAAACGAGCAAAAAGCAGGGCGTGGAACGGAAATCGAAGTGGAAGGTGATACCGTGACCATCGTGGTCAGAGAAGGTGGTTCCGGTGGATCAGGTGGCAGCGGTGGTTCAGGTGTAGCATGGTTGATGCGCGCCTGCTGCTGCTGATTTGGGAAGCCAAAGAGCTGCTGGAACGCGCAACCCGGAAGAAGCGCGCAAAGTTCTCGAAGAAGCCGCGAAATTGCGGAACGTAACAATAACGAAGAATTATTAAGAAGAACTGGAAGTGCTTCTGAAAAACTGGAGGGCGGTAGTACCGAACGCCGCGTGATTCAGGTCTGGAACAAATTCTAGAAGATGAAGATCCGGAAGTGGTGGAAAAAGATGCTGGAATCCTGCTCGAAATTCTGGAAGAGGCTGGCGATCCGGCGCGTAAACTGGTTGAAGAAATTTTGC GCGTTGTGCGCAAAAACCTGGAGGAAGCGGTGAACTGGTGCGCCGTCTGAGC |
| C2-B- $\alpha$ 20_nGFP_cASGPR-ET   | GGGGGTAGCGGGGGCTCTGGTGGTAGCGGTGGCAGCGGTGGTAGTCCAACCTTACGCGTTGAAATTGAAGGGCCCGCGCGGATGTTGCCGCGCTGCTGCGCGGGGTGGCGGAACTGGCTGCTGAACGTGCGCCGAAATTAGCGCCAGTAGTAGCCGTGATCGCCGATTTTGTGCGGAGCCGCCCGGGCCCGGTCCGCGTTCGCGTTGAGATGGGCGATGGTGTCTGCGCGTCGTTTTGGAGGGCCTGCATATCAAACAGCAGCGTCAACTTTACCGTGATGTGCGCGAAACATCCAAGAAGCAAGGCGTGGAACCGAAATTGAGGTGGAGGGCGATACGGTTACCATTGCTGTTGCGGAAGGCGGTTCTGGGGGCAGTGGCGGTTCAGGCGGCTCTGGTGGTAGCGCAGCAGAAGAGGCCATTGCTGCGCTTAAAGAACTGAACACACCAGAAGCGGAGGATCTGTTAGATTTCAATTGAGACTCTGCTGTGGAAGGTGCGCCGGAAGAAGAGGCCTTGCGTAAAGCGGCCGCTTTGGCGCGTCGTTGGGGGGAACCAGAAGCGGCCCGCGTTATCGAGGAGGCACTGAAGTCACTGAGT                                                                                                                                                                               |

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| C2-B- $\alpha$ 10_n<br>GFP_cASGP<br>R-ET | GGTGGTTCTGGTGGATCGGGCGGTAGCGGTGGTTCGGGAGGATCAGCAAC<br>CGTG CATGTGACCATTCGCGGCGATCTGGCAGCTGCGGATGTGGCTGCTTT<br>GGCTGAAGCAGTGATGCGTGAAGTGGGCCGCATTGGCGCGCGCTTGGAAC<br>TGACCC TAGATCTGCCAGCAGATATTACCCCGGAAGATCTTCGTCGCATTGT<br>GGAAGCGCTGATGGAATGCGCGAAAAAGACCGGTCTGGCGCGTCTGACGC<br>TGCGTGGTTTGAGTCCGAAACAGCAGCGTCAGCTGTATCGCGATGTGCGTG<br>AAACCAGCAAAAAGCAGGGCGTGGAACCGAAATTGAAGTTGAAGGTGAT<br>ACCGTGACGATTGTGGTGAGGGAAGGTGGTTCCGGAGGGAGCGGAGGAA<br>GTGGAGGATCTGGTGGTTCTGCTGCCGAAGAAGCGATCCGCCGTCTGAAA<br>GAACTGAACACACCGGAAGCAGAAGATTTGCTGGATTTTATTGAAACCCTG<br>CTGTGGAAAGGTCGCCCCGAAGAAGAAGCTCTGCGTAAAGCGGCGGCACT<br>GGCGAGAAGATGGGGCGAACCAGAAGCAGCGAGAGTGATTGAAGAAGCA<br>CTGAAAAGCCTGAGC  |
| C2-B- $\alpha$ 8_nG<br>FP_cASGPR-<br>ET  | GGGGGTTCCGGCGGTTCCGGGCGGTAGTGGAGGCTCCGGTGGATCTATGAAA<br>GGGACGTTTGTGCAGGAAGGCCCGATTCCCGCCTCAAAAGCTACAACCGC<br>GGTGAAAAAACTGACCGAATTGGCAAAAGAAGTGGGTTTTGATGAGTTGG<br>ATGTCACCCTGCAGTTGAGCAGTGATAACACGGAGGAGGAACTGAAGGAA<br>CTTGCGAAAGCCTTAGTAGAACTGCAACTGGCCGTTGGTGCCAAGATTACC<br>CTGGTGGGTGTCAGCCCGAAACAACAACGTCAACTTTACCGCGACGTGCG<br>TGAAACCTCTAAGAAACAGGGTGTTGAAACTGAAATTGAAGTCGAAGGGG<br>ATACGGTCACTATTGTGGTACGTGAAGGCGGCAGCGGAGGTAGCGGAGGTT<br>CAGGCGGTAGCGGCGGTTTCGGCGGCAGAGGAAGCCATCCGTCGCTTGAAG<br>GAACTGAACACCCCCGAAGCCGAAGATTTATTGGACTTCATTGAAACGTTG<br>TTATGGAAAGGACGCCCAGAAGAAGAGGCTTTACGCAAAGCGGCGGCCCT<br>TGCGCGCCGCTGGGGTGAGCCGGAAGCCGCGCGTGTAATTGAGGAAGCGC<br>TGAAAAGTTTAAGT |