**Supplementary File 3a.** DNA sequence of plasmids generated in this study.

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| --- | --- |
| **Plasmid** | **DNA Sequence (5'-3')** |
| TagRFP-T-Akt2 | GACGGATCGGGAGATCTCCCGATCCCCTATGGTGCACTCTCAGTACAATCTGCTCTGATGCCGCATAGTTAAGCCAGTATCTGCTCCCTGCTTGTGTGTTGGAGGTCGCTGAGTAGTGCGCGAGCAAAATTTAAGCTACAACAAGGCAAGGCTTGACCGACAATTGCATGAAGAATCTGCTTAGGGTTAGGCGTTTTGCGCTGCTTCGCGATGTACGGGCCAGATATACGCGTTGACATTGATTATTGACTAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCAACGACCCCCGCCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATGGGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGTGATGCGGTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCACGGGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGAGTTTGTTTTGGCACCAAAATCAACGGGACTTTCCAAAATGTCGTAACAACTCCGCCCCATTGACGCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCTCTGGCTAACTAGAGAACCCACTGCTTACTGGCTTATCGAAATTAATACGACTCACTATAGGGAGACCCAAGCTGGCTAGACACCGCCACCATGGTGTCTAAGGGCGAAGAGCTGATTAAGGAGAACATGCACATGAAGCTGTACATGGAGGGCACCGTGAACAACCACCACTTCAAGTGCACATCCGAGGGCGAAGGCAAGCCCTACGAGGGCACCCAGACCATGAGAATCAAGGTGGTCGAGGGCGGCCCTCTCCCCTTCGCCTTCGACATCCTGGCTACCAGCTTCATGTACGGCAGCAGAACCTTCATCAACCACACCCAGGGCATCCCCGATTTCTTTAAGCAGTCCTTCCCTGAGGGCTTCACATGGGAGAGAGTCACCACATACGAAGACGGGGGCGTGCTGACCGCTACCCAGGACACCAGCCTCCAGGACGGCTGCCTCATCTACAACGTCAAGATCAGAGGGGTGAACTTCCCATCCAACGGCCCTGTGATGCAGAAGAAAACACTCGGCTGGGAGGCCAACACCGAGATGCTGTACCCCGCTGACGGCGGCCTGGAAGGCAGAACCGACATGGCCCTGAAGCTCGTGGGCGGGGGCCACCTGATCTGCAACTTCAAGACCACATACAGATCCAAGAAACCCGCTAAGAACCTCAAGATGCCCGGCGTCTACTATGTGGACCACAGACTGGAAAGAATCAAGGAGGCCGACAAAGAGACCTACGTCGAGCAGCACGAGGTGGCTGTGGCCAGATACTGCGACCTCCCTAGCAAACTGGGGCACAAACTTAATGGCATGGACGAGCTGTACAAGAATGAGGTGTCTGTCATCAAAGAAGGCTGGCTCCACAAGCGTGGTGAATACATCAAGACCTGGAGGCCACGGTACTTCCTGCTGAAGAGCGACGGCTCCTTCATTGGGTACAAGGAGAGGCCCGAGGCCCCTGATCAGACTCTACCCCCCTTAAACAACTTCTCCGTAGCAGAATGCCAGCTGATGAAGACCGAGAGGCCGCGACCCAACACCTTTGTCATACGCTGCCTGCAGTGGACCACAGTCATCGAGAGGACCTTCCACGTGGATTCTCCAGACGAGAGGGAGGAGTGGATGCGGGCCATCCAGATGGTCGCCAACAGCCTCAAGCAGCGGGCCCCAGGCGAGGACCCCATGGACTACAAGTGTGGCTCCCCCAGTGACTCCTCCACGACTGAGGAGATGGAAGTGGCGGTCAGCAAGGCACGGGCTAAAGTGACCATGAATGACTTCGACTATCTCAAACTCCTTGGCAAGGGAACCTTTGGCAAAGTCATCCTGGTGCGGGAGAAGGCCACTGGCCGCTACTACGCCATGAAGATCCTGCGGAAGGAAGTCATCATTGCCAAGGATGAAGTCGCTCACACAGTCACCGAGAGCCGGGTCCTCCAGAACACCAGGCACCCGTTCCTCACTGCGCTGAAGTATGCCTTCCAGACCCACGACCGCCTGTGCTTTGTGATGGAGTATGCCAACGGGGGTGAGCTGTTCTTCCACCTGTCCCGGGAGCGTGTCTTCACAGAGGAGCGGGCCCGGTTTTATGGTGCAGAGATTGTCTCGGCTCTTGAGTACTTGCACTCGCGGGACGTGGTATACCGCGACATCAAGCTGGAAAACCTCATGCTGGACAAAGATGGCCACATCAAGATCACTGACTTTGGCCTCTGCAAAGAGGGCATCAGTGACGGGGCCACCATGAAAACCTTCTGTGGGACCCCGGAGTACCTGGCGCCTGAGGTGCTGGAGGACAATGACTATGGCCGGGCCGTGGACTGGTGGGGGCTGGGTGTGGTCATGTACGAGATGATGTGCGGCCGCCTGCCCTTCTACAACCAGGACCACGAGCGCCTCTTCGAGCTCATCCTCATGGAAGAGATCCGCTTCCCGCGCACGCTCAGCCCCGAGGCCAAGTCCCTGCTTGCTGGGCTGCTTAAGAAGGACCCCAAGCAGAGGCTTGGTGGGGGGCCCAGCGATGCCAAGGAGGTCATGGAGCACAGGTTCTTCCTCAGCATCAACTGGCAGGACGTGGTCCAGAAGAAGCTCCTGCCACCCTTCAAACCTCAGGTCACGTCCGAGGTCGACACAAGGTACTTCGATGATGAATTTACCGCCCAGTCCATCACAATCACACCCCCTGACCGCTATGACAGCCTGGGCTTACTGGAGCTGGACCAGCGGACCCACTTCCCCCAGTTCTCCTACTCGGCCAGCATCCGCGAGTGAGACCCAGCTTTCTTGTACAAAGTGGTGATAATTAATTAAGATAAACCCGCTGATCAGCCTCGACTGTGCCTTCTAGTTGCCAGCCATCTGTTGTTTGCCCCTCCCCCGTGCCTTCCTTGACCCTGGAAGGTGCCACTCCCACTGTCCTTTCCTAATAAAATGAGGAAATTGCATCGCATTGTCTGAGTAGGTGTCATTCTATTCTGGGGGGTGGGGTGGGGCAGGACAGCAAGGGGGAGGATTGGGAAGACAATAGCAGGCATGCTGGGGATGCGGTGGGCTCTATGGCTTCTGAGGCGGAAAGAACCAGCTGGGGCTCTAGGGGGTATCCCCACGCGCCCTGTAGCGGCGCATTAAGCGCGGCGGGTGTGGTGGTTACGCGCAGCGTGACCGCTACACTTGCCAGCGCCCTAGCGCCCGCTCCTTTCGCTTTCTTCCCTTCCTTTCTCGCCACGTTCGCCGGCTTTCCCCGTCAAGCTCTAAATCGGGGGCTCCCTTTAGGGTTCCGATTTAGTGCTTTACGGCACCTCGACCCCAAAAAACTTGATTAGGGTGATGGTTCACGTAGTGGGCCATCGCCCTGATAGACGGTTTTTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTTGTTCCAAACTGGAACAACACTCAACCCTATCTCGGTCTATTCTTTTGATTTATAAGGGATTTTGCCGATTTCGGCCTATTGGTTAAAAAATGAGCTGATTTAACAAAAATTTAACGCGAATTAATTCTGTGGAATGTGTGTCAGTTAGGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCAGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCATAGTCCCGCCCCTAACTCCGCCCATCCCGCCCCTAACTCCGCCCAGTTCCGCCCATTCTCCGCCCCATGGCTGACTAATTTTTTTTATTTATGCAGAGGCCGAGGCCGCCTCTGCCTCTGAGCTATTCCAGAAGTAGTGAGGAGGCTTTTTTGGAGGCCTAGGCTTTTGCAAAAAGCTCCCGGGAGCTTGTATATCCATTTTCGGATCTGATCAAGAGACAGGATGAGGATCGTTTCGCATGATTGAACAAGATGGATTGCACGCAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTCGGCTATGACTGGGCACAACAGACAATCGGCTGCTCTGATGCCGCCGTGTTCCGGCTGTCAGCGCAGGGGCGCCCGGTTCTTTTTGTCAAGACCGACCTGTCCGGTGCCCTGAATGAACTGCAGGACGAGGCAGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTCCTTGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGGAAGGGACTGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCATCTCACCTTGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTCGACCACCAAGCGAAACATCGCATCGAGCGAGCACGTACTCGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCCGAACTGTTCGCCAGGCTCAAGGCGCGCATGCCCGACGGCGAGGATCTCGTCGTGACCCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGCTTTTCTGGATTCATCGACTGTGGCCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTCCTCGTGCTTTACGGTATCGCCGCTCCCGATTCGCAGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGCGGGACTCTGGGGTTCGAAATGACCGACCAAGCGACGCCCAACCTGCCATCACGAGATTTCGATTCCACCGCCGCCTTCTATGAAAGGTTGGGCTTCGGAATCGTTTTCCGGGACGCCGGCTGGATGATCCTCCAGCGCGGGGATCTCATGCTGGAGTTCTTCGCCCACCCCAACTTGTTTATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTCACAAATAAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAAACTCATCAATGTATCTTATCATGTCTGTATACCGTCGACCTCTAGCTAGAGCTTGGCGTAATCATGGTCATAGCTGTTTCCTGTGTGAAATTGTTATCCGCTCACAATTCCACACAACATACGAGCCGGAAGCATAAAGTGTAAAGCCTGGGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCCCGCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGAGGCGGTTTGCGTATTGGGCGCTCTTCCGCTTCCTCGCTCACTGACTCGCTGCGCTCGGTCGTTCGGCTGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTTTGCAAGCAGCAGATTACGCGCAGAAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAAACTCACGTTAAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCTTTTAAATTAAAAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTCGTTCATCCATAGTTGCCTGACTCCCCGTCGTGTAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATACCGCGAGACCCACGCTCACCGGCTCCAGATTTATCAGCAATAAACCAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCCTGCAACTTTATCCGCCTCCATCCAGTCTATTAATTGTTGCCGGGAAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTGCGCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTCACGCTCGTCGTTTGGTATGGCTTCATTCAGCTCCGGTTCCCAACGATCAAGGCGAGTTACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGCTCCTTCGGTCCTCCGATCGTTGTCAGAAGTAAGTTGGCCGCAGTGTTATCACTCATGGTTATGGCAGCACTGCATAATTCTCTTACTGTCATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTCAATACGGGATAATACCGCGCCACATAGCAGAACTTTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGGGCGAAAACTCTCAAGGATCTTACCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTCAGCATCTTTTACTTTCACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATGCCGCAAAAAAGGGAATAAGGGCGACACGGAAATGTTGAATACTCATACTCTTCCTTTTTCAATATTATTGAAGCATTTATCAGGGTTATTGTCTCATGAGCGGATACATATTTGAATGTATTTAGAAAAATAAACAAATAGGGGTTCCGCGCACATTTCCCCGAAAAGTGCCACCTGACGTC 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TAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCAACGACCCCCGCCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATGGGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGTGATGCGGTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCACGGGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGAGTTTGTTTTGGCACCAAAATCAACGGGACTTTCCAAAATGTCGTAACAACTCCGCCCCATTGACGCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTGGTTTAGTGAACCGTCAGATCCGCTAGCGCTACCGGTCGCCACCATGGCCAGGACCACCAGCCAGCTGTATGACGCCGTGCCCATCCAGTCCAGCGTGGTGTTATGTTCCTGCCCATCCCCATCAATGGTGAGGACCCAGACTGAGTCCAGCACGCCCCCTGGCATTCCTGGTGGCAGCAGGCAGGGCCCCGCCATGGACGGCACTGCAGCCGAGCCTCGGCCCGGCGCCGGCTCCCTGCAGCATGCCCAGCCTCCGCCGCAGCCTCGGAAGAAGCGGCCTGAGGACTTCAAGTTTGGGAAAATCCTTGGGGAAGGCTCTTTTTCCACGGTTGTCCTGGCTCGAGAACTGGCAACCTCCAGAGAATATGCGATTAAAATTCTGGAGAAGCGACATATCATAAAAGAGAACAAGGTCCCCTATGTAACCAGAGAGCGGGATGTCATGTCGCGCCTGGATCACCCCTTCTTTGTTAAGCTTTACTTCACATTTCAGGACGACGAGAAGCTGTATTTCGGCCTTAGTTATGCCAAAAATGGAGAACTACTTAAATATATTCGCAAAATCGGTTCATTCGATGAGACCTGTACCCGATTTTACACGGCTGAGATTGTGTCTGCTTTAGAGTACTTGCACGGCAAGGGCATCATTCACAGGGACCTTAAACCGGAAAACATTTTGTTAAATGAAGATATGCACATCCAGATCACAGATTTTGGAACAGCAAAAGTCTTATCCCCAGAGAGCAAACAAGCCAGGGCCAACTCATTCGTGGGAACAGCGCAGTACGTTTCTCCAGAGCTGCTCACGGAGAAGTCCGCCTGTAAGAGTTCAGACCTTTGGGCTCTTGGATGCATAATATACCAGCTTGTGGCAGGACTCCCACCATTCCGAGCTGGAAACGAGTATCTTATATTTCAGAAGATCATTAAGTTGGAATATGACTTTCCAGAAAAATTCTTCCCTAAGGCAAGAGACCTCGTGGAGAAACTTTTGGTTTTAGATGCCACAAAGCGGTTAGGCTGTGAGGAAATGGAAGGATACGGACCTCTTAAAGCACACCCGTTCTTCGAGTCCGTCACGTGGGAGAACCTGCACCAGCAGACGCCTCCGAAGCTCACCGCTTACCTGCCGGCTATGTCGGAAGACGACGAGGACTGCTATGGCAATTATGACAATCTCCTGAGCCAGTTTGGCTGCATGCAGGTGTCTTCGTCCTCCTCCTCACACTCCCTGTCAGCCTCCGACACGGGCCTGCCCCAGAGGTCAGGCAGCAACATAGAGCAGTACATTCACGATCTGGACTCGAACTCCTTTGAACTGGACTTACAGTTTTCCGAAGATGAGAAGAGGTTGTTGTTGGAGAAGCAGGCTGGCGGAAACCCTTGGCACCAGTTTGTAGAAAATAATTTAATACTAAAGATGGGCCCAGTGGATAAGCGGAAGGGTTTATTTGCAAGACGACGACAGCTGTTGCTCACAGAAGGACCACATTTATATTATGTGGATCCTGTCAACAAAGTTCTGAAAGGTGAAATTCCTTGGTCACAAGAACTTCGACCAGAGGCCAAGAATTTTAAAACTTTCTTTGTCCACACGCCTAACAGGACGTATTATCTGATGGACCCCAGCGGGAACGCACACAAGTGGTGCAGGAAGATCCAGGAGGTTTGGAGGCAGCGATACCAGAGCCACCCGGACGCCGCTGTGCAGGTGAGCAAGGGCGAGGAGCTGTTCACCGGGGTGGTGCCCATCCTGGTCGAGCTGGACGGCGACGTAAACGGCCACAAGTTCAGCGTGTCCGGCGAGGGCGAGGGCGATGCCACCTACGGCAAGCTGACCCTGAAGTTCATCTGCACCACCGGCAAGCTGCCCGTGCCCTGGCCCACCCTCGTGACCACCCTGACCTACGGCGTGCAGTGCTTCAGCCGCTACCCCGACCACATGAAGCAGCACGACTTCTTCAAGTCCGCCATGCCCGAAGGCTACGTCCAGGAGCGCACCATCTTCTTCAAGGACGACGGCAACTACAAGACCCGCGCCGAGGTGAAGTTCGAGGGCGACACCCTGGTGAACCGCATCGAGCTGAAGGGCATCGACTTCAAGGAGGACGGCAACATCCTGGGGCACAAGCTGGAGTACAACTACAACAGCCACAACGTCTATATCATGGCCGACAAGCAGAAGAACGGCATCAAGGTGAACTTCAAGATCCGCCACAACATCGAGGACGGCAGCGTGCAGCTCGCCGACCACTACCAGCAGAACACCCCCATCGGCGACGGCCCCGTGCTGCTGCCCGACAACCACTACCTGAGCACCCAGTCCGCCCTGAGCAAAGACCCCAACGAGAAGCGCGATCACATGGTCCTGCTGGAGTTCGTGACCGCCGCCGGGATCACTCTCGGCATGGACGAGCTGTACAAGTCCGGACTCAGATCTCGAGCTCAAGCTTCGAATTCTGCAGTCGACGGTACCGCGGGCCCGGGATCCACCGGATCTAGATAACTGATCATAATCAGCCATACCACATTTGTAGAGGTTTTACTTGCTTTAAAAAACCTCCCACACCTCCCCCTGAACCTGAAACATAAAATGAATGCAATTGTTGTTGTTAACTTGTTTATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTCACAAATAAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAAACTCATCAATGTATCTTAACGCGTAAATTGTAAGCGTTAATATTTTGTTAAAATTCGCGTTAAATTTTTGTTAAATCAGCTCATTTTTTAACCAATAGGCCGAAATCGGCAAAATCCCTTATAAATCAAAAGAATAGACCGAGATAGGGTTGAGTGTTGTTCCAGTTTGGAACAAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCCTAATCAAGTTTTTTGGGGTCGAGGTGCCGTAAAGCACTAAATCGGAACCCTAAAGGGAGCCCCCGATTTAGAGCTTGACGGGGAAAGCCGGCGAACGTGGCGAGAAAGGAAGGGAAGAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCGGTCACGCTGCGCGTAACCACCACACCCGCCGCGCTTAATGCGCCGCTACAGGGCGCGTCAGGTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTTCTAAATACATTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAATGCTTCAATAATATTGAAAAAGGAAGAGTCCTGAGGCGGAAAGAACCAGCTGTGGAATGTGTGTCAGTTAGGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCAGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCATAGTCCCGCCCCTAACTCCGCCCATCCCGCCCCTAACTCCGCCCAGTTCCGCCCATTCTCCGCCCCATGGCTGACTAATTTTTTTTATTTATGCAGAGGCCGAGGCCGCCTCGGCCTCTGAGCTATTCCAGAAGTAGTGAGGAGGCTTTTTTGGAGGCCTAGGCTTTTGCAAAGATCGATCAAGAGACAGGATGAGGATCGTTTCGCATGATTGAACAAGATGGATTGCACGCAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTCGGCTATGACTGGGCACAACAGACAATCGGCTGCTCTGATGCCGCCGTGTTCCGGCTGTCAGCGCAGGGGCGCCCGGTTCTTTTTGTCAAGACCGACCTGTCCGGTGCCCTGAATGAACTGCAAGACGAGGCAGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTCCTTGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGGAAGGGACTGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCATCTCACCTTGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTCGACCACCAAGCGAAACATCGCATCGAGCGAGCACGTACTCGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCCGAACTGTTCGCCAGGCTCAAGGCGAGCATGCCCGACGGCGAGGATCTCGTCGTGACCCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGCTTTTCTGGATTCATCGACTGTGGCCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTCCTCGTGCTTTACGGTATCGCCGCTCCCGATTCGCAGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGCGGGACTCTGGGGTTCGAAATGACCGACCAAGCGACGCCCAACCTGCCATCACGAGATTTCGATTCCACCGCCGCCTTCTATGAAAGGTTGGGCTTCGGAATCGTTTTCCGGGACGCCGGCTGGATGATCCTCCAGCGCGGGGATCTCATGCTGGAGTTCTTCGCCCACCCTAGGGGGAGGCTAACTGAAACACGGAAGGAGACAATACCGGAAGGAACCCGCGCTATGACGGCAATAAAAAGACAGAATAAAACGCACGGTGTTGGGTCGTTTGTTCATAAACGCGGGGTTCGGTCCCAGGGCTGGCACTCTGTCGATACCCCACCGAGACCCCATTGGGGCCAATACGCCCGCGTTTCTTCCTTTTCCCCACCCCACCCCCCAAGTTCGGGTGAAGGCCCAGGGCTCGCAGCCAACGTCGGGGCGGCAGGCCCTGCCATAGCCTCAGGTTACTCATATATACTTTAGATTGATTTAAAACTTCATTTTTAATTTAAAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGACCAAAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAAAACCACCGCTACCAGCGGTGGTTTGTTTGCCGGATCAAGAGCTACCAACTCTTTTTCCGAAGGTAACTGGCTTCAGCAGAGCGCAGATACCAAATACTGTCCTTCTAGTGTAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTCGGGCTGAACGGGGGGTTCGTGCACACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGGAAACGCCTGGTATCTTTATAGTCCTGTCGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCTGGCCTTTTGCTGGCCTTTTGCTCACATGTTCTTTCCTGCGTTATCCCCTGATTCTGTGGATAACCGTATTACCGCCATGCAT 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TAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCAACGACCCCCGCCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATGGGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGTGATGCGGTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCACGGGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGAGTTTGTTTTGGCACCAAAATCAACGGGACTTTCCAAAATGTCGTAACAACTCCGCCCCATTGACGCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTGGTTTAGTGAACCGTCAGATCCGCTAGCGCTACCGGTCGCCACCATGGCGAGCCCTCCGGAGAGCGATGGCTTCTCGGACGTGCGCAAGGTGGGCTACCTGCGCAAACCCAAGAGCATGCACAAACGCTTCTTCGTACTGCGCGCGGCCAGCGAGGCTGGGGGCCCGGCGCGCCTCGAGTACTACGAGAACGAGAAGAAGTGGCGGCACAAGTCGAGCGCCCCCAAACGCTCGATCCCCCTTGAGAGCTGCTTCAACATCAACAAGCGGGCTGACTCCAAGAACAAGCACCTGGTGGCTCTCTACACCCGGGACGAGCACTTTGCCATCGCGGCGGACAGCGAGGCCGAGCAAGACAGCTGGTACCAGGCTCTCCTACAGCTGCACAACCGTGCTAAGGGCCACCACGACGGAGCTGCGGCCCTCGGGGCGGGAGGTGGTGGGGGCAGCTGCAGCGGCAGCTCCGGCCTTGGTGAGGCTGGGGAGGACTTGAGCTACGGTGACGTGCCCCCAGGACCCGCATTCAAAGAGGTCTGGCAAGTGATCCTGAAGCCCAAGGGCCTGGGTCAGACAAAGAACCTGATTGGTATCTACCGCCTTTGCCTGACCAGCAAGACCATCAGCTTCGTGAAGCTGAACTCGGAGGCAGCGGCCGTGGTGCTGCAGCTGATGAACATCAGGCGCTGTGGCCACTCGGAAAACTTCTTCTTCATCGAGGTGGGCCGTTCTGCCGTGACGGGGCCCGGGGAGTTCTGGATGCAGGTGGATGACTCTGTGGTGGCCCAGAACATGCACGAGACCATCCTGGAGGCCATGCGGGCCATGAGTGATGAGTTCCGCCCTCGCAGCAAGAGCCAGTCCTCGTCCAACTGCTCTAACCCCATCAGCGTCCCCCTGCGCCGGCACCATCTCAACAATCCCCCGCCCAGCCAGGTGGGGCTGACCCGCCGATCACGCACTGAGAGCATCACCGCCACCTCCCCGGCCAGCATGGTGGGCGGGAAGCCAGGCTCCTTCCGTGTCCGCGCCTCCAGTGACGGCGAAGGCACCATGTCCCGCCCAGCCTCGGTGGACGGCAGCCCTGTGAGTCCCAGCACCAACAGAACCCACGCCCACCGGCATCGGGGCAGCGCCCGGCTGCACCCCCCGCTCAACCACAGCCGCTCCATCCCCATGCCGGCTTCCCGCTGCTCGCCTTCGGCCACCAGCCCGGTCAGTCTGTCGTCCAGTAGCACCAGTGGCCATGGCTCCACCTCGGATTGTCTCTTCCCACGGCGATCTAGTGCTTCGGTGTCTGGTTCCCCCAGCGATGGCGGTTTCATCTCCTCGGATGAGTATGGCTCCAGTCCCTGCGATTTCCGGAGTTCCTTCCGCAGTGTCACTCCGGATTCCCTGGGCCACACCCCACCAGCCCGCGGTGAGGAGGAGCTAAGCAACTATATCTGCATGGGTGGCAAGGGGCCCTCCACCCTGACCGCCCCCAACGGTCACTACATTTTGTCTCGGGGTGGCAATGGCCACCGCTGCACCCCAGGAACAGGCTTGGGCACGAGTCCAGCCTTGGCTGGGGATGAAGCAGCCAGTGCTGCAGATCTGGATAATCGGTTCCGAAAGAGAACTCACTCGGCAGGCACATCCCCTACCATTACCCACCAGAAGACCCCGTCCCAGTCCTCAGTGGCTTCCATTGAGGAGTACACAGAGATGATGCCTGCCTACCCACCAGGAGGTGGCAGTGGAGGCCGACTGCCGGGACACAGGCACTCCGCCTTCGTGCCCACCCGCTCCTACCCAGAGGAGGGTCTGGAAATGCACCCCTTGGAGCGTCGGGGGGGGCACCACCGCCCAGACAGCTCCACCCTCCACACGGATGATGGCTACATGCCCATGTCCCCAGGGGTGGCCCCAGTGCCCAGTGGCCGAAAGGGCAGTGGAGACTATATGCCCATGAGCCCCAAGAGCGTATCTGCCCCACAGCAGATCATCAATCCCATCAGACGCCATCCCCAGAGAGTGGACCCCAATGGCTACATGATGATGTCCCCCAGCGGTGGCTGCTCTCCTGACATTGGAGGTGGCCCCAGCAGCAGCAGCAGCAGCAGCAACGCCGTCCCTTCCGGGACCAGCTATGGAAAGCTGTGGACAAACGGGGTAGGGGGCCACCACTCTCATGTCTTGCCTCACCCCAAACCCCCAGTGGAGAGCAGCGGTGGTAAGCTCTTACCTTGCACAGGTGACTACATGAACATGTCACCAGTGGGGGACTCCAACACCAGCAGCCCCTCCGACTGCTACTACGGCCCTGAGGACCCCCAGCACAAGCCAGTCCTCTCCTACTACTCATTGCCAAGATCCTTTAAGCACACCCAGCGCCCCGGGGAGCCGGAGGAGGGTGCCCGGCATCAGCACCTCCGCCTTTCCACTAGCTCTGGTCGCCTTCTCTATGCTGCAACAGCAGATGATTCTTCCTCTTCCACCAGCAGCGACAGCCTGGGTGGGGGATACTGCGGGGCTAGGCTGGAGCCCAGCCTTCCACATCCCCACCATCAGGTTCTGCAGCCCCATCTGCCTCGAAAGGTGGACACAGCTGCTCAGACCAATAGCCGCCTGGCCCGGCCCACGAGGCTGTCCCTGGGGGATCCCAAGGCCAGCACCTTACCTCGGGCCCGAGAGCAGCAGCAGCAGCAGCAGCCCTTGCTGCACCCTCCAGAGCCCAAGAGCCCGGGGGAATATGTCAATATTGAATTTGGGAGTGATCAGTCTGGCTACTTGTCTGGCCCGGTGGCTTTCCACAGCTCACCTTCTGTCAGGTGTCCATCCCAGCTCCAGCCAGCTCCCAGAGAGGAAGAGACTGGCACTGAGGAGTACATGAAGATGGACCTGGGGCCGGGCCGGAGGGCAGCCTGGCAGGAGAGCACTGGGGTCGAGATGGGCAGACTGGGCCCTGCACCTCCCGGGGCTGCTAGCATTTGCAGGCCTACCCGGGCAGTGCCCAGCAGCCGGGGTGACTACATGACCATGCAGATGAGTTGTCCCCGTCAGAGCTACGTGGACACCTCGCCAGCTGCCCCTGTAAGCTATGCTGACATGCGAACAGGCATTGCTGCAGAGGAGGTGAGCCTGCCCAGGGCTACTATGGCTGCTGCCTCCTCATCCTCAGCAGCCTCTGCTTCCCCGACTGGGCCTCAAGGGGCAGCAGAGCTGGCTGCCCACTCGTCCCTGCTGGGGGGCCCACAAGGACCTGGGGGCATGAGCGCCTTCACCCGGGTGAACCTCAGTCCTAACCGCAACCAGAGTGCCAAAGTGATCCGTGCAGACCCACAAGGGTGCCGGCGGAGGCATAGCTCCGAGACTTTCTCCTCAACACCCAGTGCCACCCGGGTGGGCAACACAGTGCCCTTTGGAGCGGGGGCAGCAGTAGGGGGCGGTGGCGGTAGCAGCAGCAGCAGCGAGGATGTGAAACGCCACAGCTCTGCTTCCTTTGAGAATGTGTGGCTGAGGCCTGGGGAGCTTGGGGGAGCCCCCAAGGAGCCAGCCAAACTGTGTGGGGCTGCTGGGGGTTTGGAGAATGGTCTTAACTACATAGACCTGGATTTGGTCAAGGACTTCAAACAGTGCCCTCAGGAGTGCACCCCTGAACCGCAGCCTCCCCCACCCCCACCCCCTCATCAACCCCTGGGCAGCGGTGAGAGCAGCTCCACCCGCCGCTCAAGTGAGGATTTAAGCGCCTATGCCAGCATCAGTTTCCAGAAGCAGCCAGAGGACCGTCAGGTGAGCAAGGGCGAGGAGCTGTTCACCGGGGTGGTGCCCATCCTGGTCGAGCTGGACGGCGACGTAAACGGCCACAAGTTCAGCGTGTCCGGCGAGGGCGAGGGCGATGCCACCTACGGCAAGCTGACCCTGAAGTTCATCTGCACCACCGGCAAGCTGCCCGTGCCCTGGCCCACCCTCGTGACCACCCTGACCTACGGCGTGCAGTGCTTCAGCCGCTACCCCGACCACATGAAGCAGCACGACTTCTTCAAGTCCGCCATGCCCGAAGGCTACGTCCAGGAGCGCACCATCTTCTTCAAGGACGACGGCAACTACAAGACCCGCGCCGAGGTGAAGTTCGAGGGCGACACCCTGGTGAACCGCATCGAGCTGAAGGGCATCGACTTCAAGGAGGACGGCAACATCCTGGGGCACAAGCTGGAGTACAACTACAACAGCCACAACGTCTATATCATGGCCGACAAGCAGAAGAACGGCATCAAGGTGAACTTCAAGATCCGCCACAACATCGAGGACGGCAGCGTGCAGCTCGCCGACCACTACCAGCAGAACACCCCCATCGGCGACGGCCCCGTGCTGCTGCCCGACAACCACTACCTGAGCACCCAGTCCGCCCTGAGCAAAGACCCCAACGAGAAGCGCGATCACATGGTCCTGCTGGAGTTCGTGACCGCCGCCGGGATCACTCTCGGCATGGACGAGCTGTACAAGTCCGGACTCAGATCTCGAGCTCAAGCTTCGAATTCTGCAGTCGACGGTACCGCGGGCCCGGGATCCACCGGATCTAGATAACTGATCATAATCAGCCATACCACATTTGTAGAGGTTTTACTTGCTTTAAAAAACCTCCCACACCTCCCCCTGAACCTGAAACATAAAATGAATGCAATTGTTGTTGTTAACTTGTTTATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTCACAAATAAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAAACTCATCAATGTATCTTAACGCGTAAATTGTAAGCGTTAATATTTTGTTAAAATTCGCGTTAAATTTTTGTTAAATCAGCTCATTTTTTAACCAATAGGCCGAAATCGGCAAAATCCCTTATAAATCAAAAGAATAGACCGAGATAGGGTTGAGTGTTGTTCCAGTTTGGAACAAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCCTAATCAAGTTTTTTGGGGTCGAGGTGCCGTAAAGCACTAAATCGGAACCCTAAAGGGAGCCCCCGATTTAGAGCTTGACGGGGAAAGCCGGCGAACGTGGCGAGAAAGGAAGGGAAGAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCGGTCACGCTGCGCGTAACCACCACACCCGCCGCGCTTAATGCGCCGCTACAGGGCGCGTCAGGTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTTCTAAATACATTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAATGCTTCAATAATATTGAAAAAGGAAGAGTCCTGAGGCGGAAAGAACCAGCTGTGGAATGTGTGTCAGTTAGGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCAGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCATAGTCCCGCCCCTAACTCCGCCCATCCCGCCCCTAACTCCGCCCAGTTCCGCCCATTCTCCGCCCCATGGCTGACTAATTTTTTTTATTTATGCAGAGGCCGAGGCCGCCTCGGCCTCTGAGCTATTCCAGAAGTAGTGAGGAGGCTTTTTTGGAGGCCTAGGCTTTTGCAAAGATCGATCAAGAGACAGGATGAGGATCGTTTCGCATGATTGAACAAGATGGATTGCACGCAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTCGGCTATGACTGGGCACAACAGACAATCGGCTGCTCTGATGCCGCCGTGTTCCGGCTGTCAGCGCAGGGGCGCCCGGTTCTTTTTGTCAAGACCGACCTGTCCGGTGCCCTGAATGAACTGCAAGACGAGGCAGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTCCTTGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGGAAGGGACTGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCATCTCACCTTGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTCGACCACCAAGCGAAACATCGCATCGAGCGAGCACGTACTCGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCCGAACTGTTCGCCAGGCTCAAGGCGAGCATGCCCGACGGCGAGGATCTCGTCGTGACCCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGCTTTTCTGGATTCATCGACTGTGGCCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTCCTCGTGCTTTACGGTATCGCCGCTCCCGATTCGCAGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGCGGGACTCTGGGGTTCGAAATGACCGACCAAGCGACGCCCAACCTGCCATCACGAGATTTCGATTCCACCGCCGCCTTCTATGAAAGGTTGGGCTTCGGAATCGTTTTCCGGGACGCCGGCTGGATGATCCTCCAGCGCGGGGATCTCATGCTGGAGTTCTTCGCCCACCCTAGGGGGAGGCTAACTGAAACACGGAAGGAGACAATACCGGAAGGAACCCGCGCTATGACGGCAATAAAAAGACAGAATAAAACGCACGGTGTTGGGTCGTTTGTTCATAAACGCGGGGTTCGGTCCCAGGGCTGGCACTCTGTCGATACCCCACCGAGACCCCATTGGGGCCAATACGCCCGCGTTTCTTCCTTTTCCCCACCCCACCCCCCAAGTTCGGGTGAAGGCCCAGGGCTCGCAGCCAACGTCGGGGCGGCAGGCCCTGCCATAGCCTCAGGTTACTCATATATACTTTAGATTGATTTAAAACTTCATTTTTAATTTAAAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGACCAAAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAAAACCACCGCTACCAGCGGTGGTTTGTTTGCCGGATCAAGAGCTACCAACTCTTTTTCCGAAGGTAACTGGCTTCAGCAGAGCGCAGATACCAAATACTGTCCTTCTAGTGTAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTCGGGCTGAACGGGGGGTTCGTGCACACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGGAAACGCCTGGTATCTTTATAGTCCTGTCGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCTGGCCTTTTGCTGGCCTTTTGCTCACATGTTCTTTCCTGCGTTATCCCCTGATTCTGTGGATAACCGTATTACCGCCATGCAT 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TAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCAACGACCCCCGCCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATGGGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGTGATGCGGTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCACGGGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGAGTTTGTTTTGGCACCAAAATCAACGGGACTTTCCAAAATGTCGTAACAACTCCGCCCCATTGACGCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTGGTTTAGTGAACCGTCAGATCCGCTAGCGCTACCGGTCGCCACCATGGCTTCCCCCCCAAGGCACGGCCCCCCTGGACCTGCTTCTGGCGATGGACCTAATCTGAACAATAACAATAACAATAACAATCACTCCGTCCGGAAGTGCGGATACCTGAGAAAGCAGAAACATGGCCACAAACGATTCTTTGTGCTGCGAGGACCAGGAGCAGGAGGGGACGAGGCTACCGCAGGAGGAGGAAGCGCTCCTCAGCCACCTAGACTGGAATACTATGAAAGTGAGAAGAAATGGAGGTCAAAGGCAGGAGCTCCAAAACGCGTGATCGCACTGGACTGCTGTCTGAACATTAATAAGAGGGCAGATGCCAAGCACAAATACCTGATCGCCCTGTATACTAAAGATGAGTACTTTGCTGTCGCCGCTGAAAACGAGCAGGAACAGGAGGGCTGGTATCGAGCACTGACCGACCTGGTGTCCGAAGGACGAGCAGCAGCTGGAGATGCTCCACCAGCAGCAGCTCCAGCAGCATCATGCAGCGCATCCCTGCCAGGAGCTCTGGGAGGATCTGCAGGAGCTGCAGGAGCAGAGGACAGTTATGGACTGGTGGCTCCAGCAACAGCCGCTTACCGCGAAGTGTGGCAGGTCAACCTGAAGCCCAAAGGGCTGGGACAGTCTAAGAATCTGACCGGAGTGTACAGGCTGTGCCTGAGCGCACGCACAATCGGATTCGTGAAACTGAACTGTGAGCAGCCCAGCGTCACCCTGCAGCTGATGAATATCCGGAGATGTGGCCACTCTGATAGTTTCTTTTTCATTGAAGTGGGAAGATCCGCAGTCACAGGACCTGGGGAACTGTGGATGCAGGCTGACGATTCTGTGGTCGCACAGAACATCCATGAAACTATTCTGGAGGCCATGAAGGCTCTGAAAGAACTGTTTGAGTTCCGCCCCCGATCAAAGAGCCAGAGCTCCGGATCTAGTGCAACCCACCCTATTAGCGTGCCAGGAGCAAGGCGACACCATCACCTGGTCAATCTGCCTCCATCCCAGACAGGCCTGGTGCGACGGTCACGAACTGACAGCCTGGCAGCAACCCCACCTGCTGCAAAATGCTCAAGCTGTCGGGTGAGAACAGCCTCCGAGGGCGATGGGGGAGCAGCTGCAGGAGCAGCTGCAGCAGGAGCACGGCCTGTGTCTGTCGCTGGGAGTCCACTGTCACCAGGACCCGTGAGAGCCCCTCTGTCCAGGTCTCATACTCTGAGCGGAGGATGCGGAGGAAGAGGATCCAAGGTCGCACTGCTGCCAGCAGGAGGAGCACTGCAGCATAGTAGGTCAATGAGCATGCCAGTGGCACACAGCCCACCAGCTGCAACCAGCCCAGGATCCCTGTCCTCTAGTTCAGGACACGGCTCCGGATCTTATCCTCCACCACCTGGACCACATCCACCACTGCCTCACCCACTGCATCACGGACCAGGACAGAGGCCTAGCTCCGGAAGTGCATCAGCTAGCGGATCCCCATCTGATCCCGGCTTCATGTCCCTGGACGAGTACGGCTCTAGTCCTGGGGACCTGCGAGCCTTCTGCTCTCATCGGAGTAACACCCCAGAAAGCATCGCTGAGACACCTCCAGCAAGAGACGGAGGAGGAGGAGGAGAATTTTACGGCTATATGACAATGGATCGGCCACTGAGTCACTGTGGGAGATCATATAGAAGGGTGAGCGGAGACGCAGCTCAGGACCTGGATAGGGGCCTGAGGAAGCGCACTTACTCTCTGACCACACCAGCACGACAGCGACCAGTGCCTCAGCCATCAAGCGCTAGCCTGGATGAGTATACCCTGATGCGAGCAACATTCAGTGGCTCAGCCGGGAGGCTGTGCCCTTCCTGTCCAGCTTCCTCTCCCAAAGTGGCATACCATCCCTATCCTGAAGACTATGGAGATATCGAGATTGGCAGCCACCGGAGTTCAAGCTCCAATCTGGGAGCCGACGATGGCTACATGCCAATGACCCCTGGAGCAGCACTGGCTGGAAGCGGATCCGGCTCTTGTCGCAGTGACGATTACATGCCAATGTCACCCGCCAGTGTGTCAGCTCCCAAGCAGATCCTGCAGCCTCGAGCTGCAGCAGCTGCAGCAGCTGCAGTGCCATCCGCTGGACCAGCAGGACCAGCACCCACATCAGCCGCTGGCCGCACTTTTCCTGCCAGTGGAGGCGGGTATAAAGCATCTAGTCCTGCCGAATCAAGCCCAGAGGACAGCGGCTACATGCGGATGTGGTGCGGGTCAAAGCTGAGCATGGAGCATGCCGATGGCAAACTGCTGCCTAACGGGGACTACCTGAATGTGAGCCCATCCGATGCAGTCACTACCGGAACCCCACCTGACTTCTTCAGCGCAGCACTGCACCCTGGAGGAGAACCACTGCGAGGAGTGCCCGGATGCTGTTATTCCTCTCTGCCACGGAGCTACAAGGCCCCCTATACATGTGGGGGAGACTCCGATCAGTACGTGCTGATGAGTTCACCCGTCGGAAGAATTCTGGAGGAAGAGAGGCTGGAGCCTCAGGCAACTCCTGGACCATCCCAGGCTGCATCTGCTTTTGGGGCAGGACCTACCCAGCCACCACATCCAGTGGTCCCATCCCCTGTCCGCCCATCTGGAGGACGACCTGAGGGCTTCCTGGGACAGAGAGGAAGGGCCGTGAGGCCTACACGACTGAGCCTGGAGGGCCTGCCTTCCCTGCCATCTATGCACGAATATCCACTGCCTCCAGAGCCCAAGTCCCCTGGCGAATACATCAACATTGACTTTGGCGAGCCAGGAGCAAGACTGTCCCCACCTGCACCACCACTGCTGGCTTCTGCAGCTAGCTCCTCTAGTCTGCTGAGCGCTTCAAGCCCAGCATCCTCTCTGGGATCCGGAACACCTGGCACTAGTTCAGACTCTCGCCAGCGAAGTCCACTGTCAGATTATATGAATCTGGACTTCAGCTCCCCAAAGTCCCCAAAACCAGGAGCACCAAGCGGACACCCTGTGGGATCCCTGGATGGACTGCTGTCTCCAGAGGCCTCTAGTCCCTATCCTCCACTGCCCCCTAGACCATCTGCTAGTCCCTCAAGCTCCCTGCAGCCACCTCCTCCACCACCTGCACCAGGAGAACTGTACAGGCTGCCACCAGCAAGCGCAGTGGCTACCGCACAGGGACCTGGAGCAGCATCTAGTCTGTCAAGCGACACTGGAGATAACGGCGACTACACCGAGATGGCCTTTGGCGTGGCTGCAACTCCTCCACAGCCCATCGCCGCTCCCCCTAAGCCTGAAGCAGCAAGAGTGGCAAGCCCTACCTCCGGAGTCAAAAGGCTGAGTCTGATGGAGCAGGTGTCAGGGGTCGAAGCCTTCCTGCAGGCTTCCCAGCCACCAGACCCTCATCGAGGCGCAAAAGTGATCCGAGCAGATCCACAGGGAGGACGACGACGACACTCCTCTGAGACCTTCAGCTCAACAACTACCGTGACTCCAGTCTCACCCAGCTTCGCTCATAACCCCAAGAGACACAATTCCGCATCTGTGGAGAATGTCTCTCTGAGGAAAAGCTCCGAAGGAGGAGTGGGAGTCGGACCAGGAGGAGGAGACGAGCCTCCAACCAGCCCTCGACAGCTGCAGCCAGCACCCCCTCTGGCCCCCCAGGGACGGCCTTGGACACCAGGACAGCCAGGAGGACTGGTGGGATGCCCAGGATCTGGAGGAAGTCCTATGAGAAGGGAGACCAGCGCCGGATTCCAGAACGGCCTGAATTACATCGCTATTGACGTGCGGGAAGAGCCAGGACTGCCACCACAGCCACAGCCACCACCACCTCCACTGCCTCAGCCAGGGGATAAGTCTAGTTGGGGACGGACAAGAAGCCTGGGAGGACTGATCTCCGCAGTGGGAGTCGGATCTACTGGAGGAGGATGTGGAGGACCAGGACCTGGAGCTCTGCCCCCTGCAAATACCTACGCATCCATTGACTTTCTGTCCCATCATCTGAAGGAAGCAACTATCGTGAAGGAAGTGAGCAAGGGCGAGGAGCTGTTCACCGGGGTGGTGCCCATCCTGGTCGAGCTGGACGGCGACGTAAACGGCCACAAGTTCAGCGTGTCCGGCGAGGGCGAGGGCGATGCCACCTACGGCAAGCTGACCCTGAAGTTCATCTGCACCACCGGCAAGCTGCCCGTGCCCTGGCCCACCCTCGTGACCACCCTGACCTACGGCGTGCAGTGCTTCAGCCGCTACCCCGACCACATGAAGCAGCACGACTTCTTCAAGTCCGCCATGCCCGAAGGCTACGTCCAGGAGCGCACCATCTTCTTCAAGGACGACGGCAACTACAAGACCCGCGCCGAGGTGAAGTTCGAGGGCGACACCCTGGTGAACCGCATCGAGCTGAAGGGCATCGACTTCAAGGAGGACGGCAACATCCTGGGGCACAAGCTGGAGTACAACTACAACAGCCACAACGTCTATATCATGGCCGACAAGCAGAAGAACGGCATCAAGGTGAACTTCAAGATCCGCCACAACATCGAGGACGGCAGCGTGCAGCTCGCCGACCACTACCAGCAGAACACCCCCATCGGCGACGGCCCCGTGCTGCTGCCCGACAACCACTACCTGAGCACCCAGTCCGCCCTGAGCAAAGACCCCAACGAGAAGCGCGATCACATGGTCCTGCTGGAGTTCGTGACCGCCGCCGGGATCACTCTCGGCATGGACGAGCTGTACAAGTCCGGACTCAGATCTCGAGCTCAAGCTTCGAATTCTGCAGTCGACGGTACCGCGGGCCCGGGATCCACCGGATCTAGATAACTGATCATAATCAGCCATACCACATTTGTAGAGGTTTTACTTGCTTTAAAAAACCTCCCACACCTCCCCCTGAACCTGAAACATAAAATGAATGCAATTGTTGTTGTTAACTTGTTTATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTCACAAATAAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAAACTCATCAATGTATCTTAACGCGTAAATTGTAAGCGTTAATATTTTGTTAAAATTCGCGTTAAATTTTTGTTAAATCAGCTCATTTTTTAACCAATAGGCCGAAATCGGCAAAATCCCTTATAAATCAAAAGAATAGACCGAGATAGGGTTGAGTGTTGTTCCAGTTTGGAACAAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCCTAATCAAGTTTTTTGGGGTCGAGGTGCCGTAAAGCACTAAATCGGAACCCTAAAGGGAGCCCCCGATTTAGAGCTTGACGGGGAAAGCCGGCGAACGTGGCGAGAAAGGAAGGGAAGAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCGGTCACGCTGCGCGTAACCACCACACCCGCCGCGCTTAATGCGCCGCTACAGGGCGCGTCAGGTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTTCTAAATACATTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAATGCTTCAATAATATTGAAAAAGGAAGAGTCCTGAGGCGGAAAGAACCAGCTGTGGAATGTGTGTCAGTTAGGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCAGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCATAGTCCCGCCCCTAACTCCGCCCATCCCGCCCCTAACTCCGCCCAGTTCCGCCCATTCTCCGCCCCATGGCTGACTAATTTTTTTTATTTATGCAGAGGCCGAGGCCGCCTCGGCCTCTGAGCTATTCCAGAAGTAGTGAGGAGGCTTTTTTGGAGGCCTAGGCTTTTGCAAAGATCGATCAAGAGACAGGATGAGGATCGTTTCGCATGATTGAACAAGATGGATTGCACGCAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTCGGCTATGACTGGGCACAACAGACAATCGGCTGCTCTGATGCCGCCGTGTTCCGGCTGTCAGCGCAGGGGCGCCCGGTTCTTTTTGTCAAGACCGACCTGTCCGGTGCCCTGAATGAACTGCAAGACGAGGCAGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTCCTTGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGGAAGGGACTGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCATCTCACCTTGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTCGACCACCAAGCGAAACATCGCATCGAGCGAGCACGTACTCGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCCGAACTGTTCGCCAGGCTCAAGGCGAGCATGCCCGACGGCGAGGATCTCGTCGTGACCCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGCTTTTCTGGATTCATCGACTGTGGCCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTCCTCGTGCTTTACGGTATCGCCGCTCCCGATTCGCAGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGCGGGACTCTGGGGTTCGAAATGACCGACCAAGCGACGCCCAACCTGCCATCACGAGATTTCGATTCCACCGCCGCCTTCTATGAAAGGTTGGGCTTCGGAATCGTTTTCCGGGACGCCGGCTGGATGATCCTCCAGCGCGGGGATCTCATGCTGGAGTTCTTCGCCCACCCTAGGGGGAGGCTAACTGAAACACGGAAGGAGACAATACCGGAAGGAACCCGCGCTATGACGGCAATAAAAAGACAGAATAAAACGCACGGTGTTGGGTCGTTTGTTCATAAACGCGGGGTTCGGTCCCAGGGCTGGCACTCTGTCGATACCCCACCGAGACCCCATTGGGGCCAATACGCCCGCGTTTCTTCCTTTTCCCCACCCCACCCCCCAAGTTCGGGTGAAGGCCCAGGGCTCGCAGCCAACGTCGGGGCGGCAGGCCCTGCCATAGCCTCAGGTTACTCATATATACTTTAGATTGATTTAAAACTTCATTTTTAATTTAAAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGACCAAAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAAAACCACCGCTACCAGCGGTGGTTTGTTTGCCGGATCAAGAGCTACCAACTCTTTTTCCGAAGGTAACTGGCTTCAGCAGAGCGCAGATACCAAATACTGTCCTTCTAGTGTAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTCGGGCTGAACGGGGGGTTCGTGCACACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGGAAACGCCTGGTATCTTTATAGTCCTGTCGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCTGGCCTTTTGCTGGCCTTTTGCTCACATGTTCTTTCCTGCGTTATCCCCTGATTCTGTGGATAACCGTATTACCGCCATGCAT 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| IRS2-FLAG | TAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCAACGACCCCCGCCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATGGGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGTGATGCGGTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCACGGGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGAGTTTGTTTTGGCACCAAAATCAACGGGACTTTCCAAAATGTCGTAACAACTCCGCCCCATTGACGCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTGGTTTAGTGAACCGTCAGATCCGCTAGCGCTACCGGTCGCCACCATGGCTTCCCCCCCAAGGCACGGCCCCCCTGGACCTGCTTCTGGCGATGGACCTAATCTGAACAATAACAATAACAATAACAATCACTCCGTCCGGAAGTGCGGATACCTGAGAAAGCAGAAACATGGCCACAAACGATTCTTTGTGCTGCGAGGACCAGGAGCAGGAGGGGACGAGGCTACCGCAGGAGGAGGAAGCGCTCCTCAGCCACCTAGACTGGAATACTATGAAAGTGAGAAGAAATGGAGGTCAAAGGCAGGAGCTCCAAAACGCGTGATCGCACTGGACTGCTGTCTGAACATTAATAAGAGGGCAGATGCCAAGCACAAATACCTGATCGCCCTGTATACTAAAGATGAGTACTTTGCTGTCGCCGCTGAAAACGAGCAGGAACAGGAGGGCTGGTATCGAGCACTGACCGACCTGGTGTCCGAAGGACGAGCAGCAGCTGGAGATGCTCCACCAGCAGCAGCTCCAGCAGCATCATGCAGCGCATCCCTGCCAGGAGCTCTGGGAGGATCTGCAGGAGCTGCAGGAGCAGAGGACAGTTATGGACTGGTGGCTCCAGCAACAGCCGCTTACCGCGAAGTGTGGCAGGTCAACCTGAAGCCCAAAGGGCTGGGACAGTCTAAGAATCTGACCGGAGTGTACAGGCTGTGCCTGAGCGCACGCACAATCGGATTCGTGAAACTGAACTGTGAGCAGCCCAGCGTCACCCTGCAGCTGATGAATATCCGGAGATGTGGCCACTCTGATAGTTTCTTTTTCATTGAAGTGGGAAGATCCGCAGTCACAGGACCTGGGGAACTGTGGATGCAGGCTGACGATTCTGTGGTCGCACAGAACATCCATGAAACTATTCTGGAGGCCATGAAGGCTCTGAAAGAACTGTTTGAGTTCCGCCCCCGATCAAAGAGCCAGAGCTCCGGATCTAGTGCAACCCACCCTATTAGCGTGCCAGGAGCAAGGCGACACCATCACCTGGTCAATCTGCCTCCATCCCAGACAGGCCTGGTGCGACGGTCACGAACTGACAGCCTGGCAGCAACCCCACCTGCTGCAAAATGCTCAAGCTGTCGGGTGAGAACAGCCTCCGAGGGCGATGGGGGAGCAGCTGCAGGAGCAGCTGCAGCAGGAGCACGGCCTGTGTCTGTCGCTGGGAGTCCACTGTCACCAGGACCCGTGAGAGCCCCTCTGTCCAGGTCTCATACTCTGAGCGGAGGATGCGGAGGAAGAGGATCCAAGGTCGCACTGCTGCCAGCAGGAGGAGCACTGCAGCATAGTAGGTCAATGAGCATGCCAGTGGCACACAGCCCACCAGCTGCAACCAGCCCAGGATCCCTGTCCTCTAGTTCAGGACACGGCTCCGGATCTTATCCTCCACCACCTGGACCACATCCACCACTGCCTCACCCACTGCATCACGGACCAGGACAGAGGCCTAGCTCCGGAAGTGCATCAGCTAGCGGATCCCCATCTGATCCCGGCTTCATGTCCCTGGACGAGTACGGCTCTAGTCCTGGGGACCTGCGAGCCTTCTGCTCTCATCGGAGTAACACCCCAGAAAGCATCGCTGAGACACCTCCAGCAAGAGACGGAGGAGGAGGAGGAGAATTTTACGGCTATATGACAATGGATCGGCCACTGAGTCACTGTGGGAGATCATATAGAAGGGTGAGCGGAGACGCAGCTCAGGACCTGGATAGGGGCCTGAGGAAGCGCACTTACTCTCTGACCACACCAGCACGACAGCGACCAGTGCCTCAGCCATCAAGCGCTAGCCTGGATGAGTATACCCTGATGCGAGCAACATTCAGTGGCTCAGCCGGGAGGCTGTGCCCTTCCTGTCCAGCTTCCTCTCCCAAAGTGGCATACCATCCCTATCCTGAAGACTATGGAGATATCGAGATTGGCAGCCACCGGAGTTCAAGCTCCAATCTGGGAGCCGACGATGGCTACATGCCAATGACCCCTGGAGCAGCACTGGCTGGAAGCGGATCCGGCTCTTGTCGCAGTGACGATTACATGCCAATGTCACCCGCCAGTGTGTCAGCTCCCAAGCAGATCCTGCAGCCTCGAGCTGCAGCAGCTGCAGCAGCTGCAGTGCCATCCGCTGGACCAGCAGGACCAGCACCCACATCAGCCGCTGGCCGCACTTTTCCTGCCAGTGGAGGCGGGTATAAAGCATCTAGTCCTGCCGAATCAAGCCCAGAGGACAGCGGCTACATGCGGATGTGGTGCGGGTCAAAGCTGAGCATGGAGCATGCCGATGGCAAACTGCTGCCTAACGGGGACTACCTGAATGTGAGCCCATCCGATGCAGTCACTACCGGAACCCCACCTGACTTCTTCAGCGCAGCACTGCACCCTGGAGGAGAACCACTGCGAGGAGTGCCCGGATGCTGTTATTCCTCTCTGCCACGGAGCTACAAGGCCCCCTATACATGTGGGGGAGACTCCGATCAGTACGTGCTGATGAGTTCACCCGTCGGAAGAATTCTGGAGGAAGAGAGGCTGGAGCCTCAGGCAACTCCTGGACCATCCCAGGCTGCATCTGCTTTTGGGGCAGGACCTACCCAGCCACCACATCCAGTGGTCCCATCCCCTGTCCGCCCATCTGGAGGACGACCTGAGGGCTTCCTGGGACAGAGAGGAAGGGCCGTGAGGCCTACACGACTGAGCCTGGAGGGCCTGCCTTCCCTGCCATCTATGCACGAATATCCACTGCCTCCAGAGCCCAAGTCCCCTGGCGAATACATCAACATTGACTTTGGCGAGCCAGGAGCAAGACTGTCCCCACCTGCACCACCACTGCTGGCTTCTGCAGCTAGCTCCTCTAGTCTGCTGAGCGCTTCAAGCCCAGCATCCTCTCTGGGATCCGGAACACCTGGCACTAGTTCAGACTCTCGCCAGCGAAGTCCACTGTCAGATTATATGAATCTGGACTTCAGCTCCCCAAAGTCCCCAAAACCAGGAGCACCAAGCGGACACCCTGTGGGATCCCTGGATGGACTGCTGTCTCCAGAGGCCTCTAGTCCCTATCCTCCACTGCCCCCTAGACCATCTGCTAGTCCCTCAAGCTCCCTGCAGCCACCTCCTCCACCACCTGCACCAGGAGAACTGTACAGGCTGCCACCAGCAAGCGCAGTGGCTACCGCACAGGGACCTGGAGCAGCATCTAGTCTGTCAAGCGACACTGGAGATAACGGCGACTACACCGAGATGGCCTTTGGCGTGGCTGCAACTCCTCCACAGCCCATCGCCGCTCCCCCTAAGCCTGAAGCAGCAAGAGTGGCAAGCCCTACCTCCGGAGTCAAAAGGCTGAGTCTGATGGAGCAGGTGTCAGGGGTCGAAGCCTTCCTGCAGGCTTCCCAGCCACCAGACCCTCATCGAGGCGCAAAAGTGATCCGAGCAGATCCACAGGGAGGACGACGACGACACTCCTCTGAGACCTTCAGCTCAACAACTACCGTGACTCCAGTCTCACCCAGCTTCGCTCATAACCCCAAGAGACACAATTCCGCATCTGTGGAGAATGTCTCTCTGAGGAAAAGCTCCGAAGGAGGAGTGGGAGTCGGACCAGGAGGAGGAGACGAGCCTCCAACCAGCCCTCGACAGCTGCAGCCAGCACCCCCTCTGGCCCCCCAGGGACGGCCTTGGACACCAGGACAGCCAGGAGGACTGGTGGGATGCCCAGGATCTGGAGGAAGTCCTATGAGAAGGGAGACCAGCGCCGGATTCCAGAACGGCCTGAATTACATCGCTATTGACGTGCGGGAAGAGCCAGGACTGCCACCACAGCCACAGCCACCACCACCTCCACTGCCTCAGCCAGGGGATAAGTCTAGTTGGGGACGGACAAGAAGCCTGGGAGGACTGATCTCCGCAGTGGGAGTCGGATCTACTGGAGGAGGATGTGGAGGACCAGGACCTGGAGCTCTGCCCCCTGCAAATACCTACGCATCCATTGACTTTCTGTCCCATCATCTGAAGGAAGCAACTATCGTGAAGGAAGACTATAAAGACGACGACGACAAATAATCAGCCATACCACATTTGTAGAGGTTTTACTTGCTTTAAAAAACCTCCCACACCTCCCCCTGAACCTGAAACATAAAATGAATGCAATTGTTGTTGTTAACTTGTTTATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTCACAAATAAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAAACTCATCAATGTATCTTAACGCGTAAATTGTAAGCGTTAATATTTTGTTAAAATTCGCGTTAAATTTTTGTTAAATCAGCTCATTTTTTAACCAATAGGCCGAAATCGGCAAAATCCCTTATAAATCAAAAGAATAGACCGAGATAGGGTTGAGTGTTGTTCCAGTTTGGAACAAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCCTAATCAAGTTTTTTGGGGTCGAGGTGCCGTAAAGCACTAAATCGGAACCCTAAAGGGAGCCCCCGATTTAGAGCTTGACGGGGAAAGCCGGCGAACGTGGCGAGAAAGGAAGGGAAGAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCGGTCACGCTGCGCGTAACCACCACACCCGCCGCGCTTAATGCGCCGCTACAGGGCGCGTCAGGTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTTCTAAATACATTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAATGCTTCAATAATATTGAAAAAGGAAGAGTCCTGAGGCGGAAAGAACCAGCTGTGGAATGTGTGTCAGTTAGGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCAGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCATAGTCCCGCCCCTAACTCCGCCCATCCCGCCCCTAACTCCGCCCAGTTCCGCCCATTCTCCGCCCCATGGCTGACTAATTTTTTTTATTTATGCAGAGGCCGAGGCCGCCTCGGCCTCTGAGCTATTCCAGAAGTAGTGAGGAGGCTTTTTTGGAGGCCTAGGCTTTTGCAAAGATCGATCAAGAGACAGGATGAGGATCGTTTCGCATGATTGAACAAGATGGATTGCACGCAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTCGGCTATGACTGGGCACAACAGACAATCGGCTGCTCTGATGCCGCCGTGTTCCGGCTGTCAGCGCAGGGGCGCCCGGTTCTTTTTGTCAAGACCGACCTGTCCGGTGCCCTGAATGAACTGCAAGACGAGGCAGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTCCTTGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGGAAGGGACTGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCATCTCACCTTGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTCGACCACCAAGCGAAACATCGCATCGAGCGAGCACGTACTCGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCCGAACTGTTCGCCAGGCTCAAGGCGAGCATGCCCGACGGCGAGGATCTCGTCGTGACCCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGCTTTTCTGGATTCATCGACTGTGGCCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTCCTCGTGCTTTACGGTATCGCCGCTCCCGATTCGCAGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGCGGGACTCTGGGGTTCGAAATGACCGACCAAGCGACGCCCAACCTGCCATCACGAGATTTCGATTCCACCGCCGCCTTCTATGAAAGGTTGGGCTTCGGAATCGTTTTCCGGGACGCCGGCTGGATGATCCTCCAGCGCGGGGATCTCATGCTGGAGTTCTTCGCCCACCCTAGGGGGAGGCTAACTGAAACACGGAAGGAGACAATACCGGAAGGAACCCGCGCTATGACGGCAATAAAAAGACAGAATAAAACGCACGGTGTTGGGTCGTTTGTTCATAAACGCGGGGTTCGGTCCCAGGGCTGGCACTCTGTCGATACCCCACCGAGACCCCATTGGGGCCAATACGCCCGCGTTTCTTCCTTTTCCCCACCCCACCCCCCAAGTTCGGGTGAAGGCCCAGGGCTCGCAGCCAACGTCGGGGCGGCAGGCCCTGCCATAGCCTCAGGTTACTCATATATACTTTAGATTGATTTAAAACTTCATTTTTAATTTAAAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGACCAAAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAAAACCACCGCTACCAGCGGTGGTTTGTTTGCCGGATCAAGAGCTACCAACTCTTTTTCCGAAGGTAACTGGCTTCAGCAGAGCGCAGATACCAAATACTGTCCTTCTAGTGTAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTCGGGCTGAACGGGGGGTTCGTGCACACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGGAAACGCCTGGTATCTTTATAGTCCTGTCGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCTGGCCTTTTGCTGGCCTTTTGCTCACATGTTCTTTCCTGCGTTATCCCCTGATTCTGTGGATAACCGTATTACCGCCATGCAT 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| PDPK1-TagRFP-T | TAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCAACGACCCCCGCCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATGGGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGTGATGCGGTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCACGGGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGAGTTTGTTTTGGCACCAAAATCAACGGGACTTTCCAAAATGTCGTAACAACTCCGCCCCATTGACGCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTGGTTTAGTGAACCGTCAGATCCGCTAGCGCTACCGGTCGCCACCATGGCCAGGACCACCAGCCAGCTGTATGACGCCGTGCCCATCCAGTCCAGCGTGGTGTTATGTTCCTGCCCATCCCCATCAATGGTGAGGACCCAGACTGAGTCCAGCACGCCCCCTGGCATTCCTGGTGGCAGCAGGCAGGGCCCCGCCATGGACGGCACTGCAGCCGAGCCTCGGCCCGGCGCCGGCTCCCTGCAGCATGCCCAGCCTCCGCCGCAGCCTCGGAAGAAGCGGCCTGAGGACTTCAAGTTTGGGAAAATCCTTGGGGAAGGCTCTTTTTCCACGGTTGTCCTGGCTCGAGAACTGGCAACCTCCAGAGAATATGCGATTAAAATTCTGGAGAAGCGACATATCATAAAAGAGAACAAGGTCCCCTATGTAACCAGAGAGCGGGATGTCATGTCGCGCCTGGATCACCCCTTCTTTGTTAAGCTTTACTTCACATTTCAGGACGACGAGAAGCTGTATTTCGGCCTTAGTTATGCCAAAAATGGAGAACTACTTAAATATATTCGCAAAATCGGTTCATTCGATGAGACCTGTACCCGATTTTACACGGCTGAGATTGTGTCTGCTTTAGAGTACTTGCACGGCAAGGGCATCATTCACAGGGACCTTAAACCGGAAAACATTTTGTTAAATGAAGATATGCACATCCAGATCACAGATTTTGGAACAGCAAAAGTCTTATCCCCAGAGAGCAAACAAGCCAGGGCCAACTCATTCGTGGGAACAGCGCAGTACGTTTCTCCAGAGCTGCTCACGGAGAAGTCCGCCTGTAAGAGTTCAGACCTTTGGGCTCTTGGATGCATAATATACCAGCTTGTGGCAGGACTCCCACCATTCCGAGCTGGAAACGAGTATCTTATATTTCAGAAGATCATTAAGTTGGAATATGACTTTCCAGAAAAATTCTTCCCTAAGGCAAGAGACCTCGTGGAGAAACTTTTGGTTTTAGATGCCACAAAGCGGTTAGGCTGTGAGGAAATGGAAGGATACGGACCTCTTAAAGCACACCCGTTCTTCGAGTCCGTCACGTGGGAGAACCTGCACCAGCAGACGCCTCCGAAGCTCACCGCTTACCTGCCGGCTATGTCGGAAGACGACGAGGACTGCTATGGCAATTATGACAATCTCCTGAGCCAGTTTGGCTGCATGCAGGTGTCTTCGTCCTCCTCCTCACACTCCCTGTCAGCCTCCGACACGGGCCTGCCCCAGAGGTCAGGCAGCAACATAGAGCAGTACATTCACGATCTGGACTCGAACTCCTTTGAACTGGACTTACAGTTTTCCGAAGATGAGAAGAGGTTGTTGTTGGAGAAGCAGGCTGGCGGAAACCCTTGGCACCAGTTTGTAGAAAATAATTTAATACTAAAGATGGGCCCAGTGGATAAGCGGAAGGGTTTATTTGCAAGACGACGACAGCTGTTGCTCACAGAAGGACCACATTTATATTATGTGGATCCTGTCAACAAAGTTCTGAAAGGTGAAATTCCTTGGTCACAAGAACTTCGACCAGAGGCCAAGAATTTTAAAACTTTCTTTGTCCACACGCCTAACAGGACGTATTATCTGATGGACCCCAGCGGGAACGCACACAAGTGGTGCAGGAAGATCCAGGAGGTTTGGAGGCAGCGATACCAGAGCCACCCGGACGCCGCTGTGCAGGTGTCTAAGGGCGAAGAGCTGATTAAGGAGAACATGCACATGAAGCTGTACATGGAGGGCACCGTGAACAACCACCACTTCAAGTGCACATCCGAGGGCGAAGGCAAGCCCTACGAGGGCACCCAGACCATGAGAATCAAGGTGGTCGAGGGCGGCCCTCTCCCCTTCGCCTTCGACATCCTGGCTACCAGCTTCATGTACGGCAGCAGAACCTTCATCAACCACACCCAGGGCATCCCCGATTTCTTTAAGCAGTCCTTCCCTGAGGGCTTCACATGGGAGAGAGTCACCACATACGAAGACGGGGGCGTGCTGACCGCTACCCAGGACACCAGCCTCCAGGACGGCTGCCTCATCTACAACGTCAAGATCAGAGGGGTGAACTTCCCATCCAACGGCCCTGTGATGCAGAAGAAAACACTCGGCTGGGAGGCCAACACCGAGATGCTGTACCCCGCTGACGGCGGCCTGGAAGGCAGAACCGACATGGCCCTGAAGCTCGTGGGCGGGGGCCACCTGATCTGCAACTTCAAGACCACATACAGATCCAAGAAACCCGCTAAGAACCTCAAGATGCCCGGCGTCTACTATGTGGACCACAGACTGGAAAGAATCAAGGAGGCCGACAAAGAGACCTACGTCGAGCAGCACGAGGTGGCTGTGGCCAGATACTGCGACCTCCCTAGCAAACTGGGGCACAAACTTAATGGCATGGACGAGCTGTACAAGTGAAATCAGCCATACCACATTTGTAGAGGTTTTACTTGCTTTAAAAAACCTCCCACACCTCCCCCTGAACCTGAAACATAAAATGAATGCAATTGTTGTTGTTAACTTGTTTATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTCACAAATAAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAAACTCATCAATGTATCTTAACGCGTAAATTGTAAGCGTTAATATTTTGTTAAAATTCGCGTTAAATTTTTGTTAAATCAGCTCATTTTTTAACCAATAGGCCGAAATCGGCAAAATCCCTTATAAATCAAAAGAATAGACCGAGATAGGGTTGAGTGTTGTTCCAGTTTGGAACAAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCCTAATCAAGTTTTTTGGGGTCGAGGTGCCGTAAAGCACTAAATCGGAACCCTAAAGGGAGCCCCCGATTTAGAGCTTGACGGGGAAAGCCGGCGAACGTGGCGAGAAAGGAAGGGAAGAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCGGTCACGCTGCGCGTAACCACCACACCCGCCGCGCTTAATGCGCCGCTACAGGGCGCGTCAGGTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTTCTAAATACATTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAATGCTTCAATAATATTGAAAAAGGAAGAGTCCTGAGGCGGAAAGAACCAGCTGTGGAATGTGTGTCAGTTAGGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCAGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCATAGTCCCGCCCCTAACTCCGCCCATCCCGCCCCTAACTCCGCCCAGTTCCGCCCATTCTCCGCCCCATGGCTGACTAATTTTTTTTATTTATGCAGAGGCCGAGGCCGCCTCGGCCTCTGAGCTATTCCAGAAGTAGTGAGGAGGCTTTTTTGGAGGCCTAGGCTTTTGCAAAGATCGATCAAGAGACAGGATGAGGATCGTTTCGCATGATTGAACAAGATGGATTGCACGCAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTCGGCTATGACTGGGCACAACAGACAATCGGCTGCTCTGATGCCGCCGTGTTCCGGCTGTCAGCGCAGGGGCGCCCGGTTCTTTTTGTCAAGACCGACCTGTCCGGTGCCCTGAATGAACTGCAAGACGAGGCAGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTCCTTGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGGAAGGGACTGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCATCTCACCTTGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTCGACCACCAAGCGAAACATCGCATCGAGCGAGCACGTACTCGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCCGAACTGTTCGCCAGGCTCAAGGCGAGCATGCCCGACGGCGAGGATCTCGTCGTGACCCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGCTTTTCTGGATTCATCGACTGTGGCCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTCCTCGTGCTTTACGGTATCGCCGCTCCCGATTCGCAGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGCGGGACTCTGGGGTTCGAAATGACCGACCAAGCGACGCCCAACCTGCCATCACGAGATTTCGATTCCACCGCCGCCTTCTATGAAAGGTTGGGCTTCGGAATCGTTTTCCGGGACGCCGGCTGGATGATCCTCCAGCGCGGGGATCTCATGCTGGAGTTCTTCGCCCACCCTAGGGGGAGGCTAACTGAAACACGGAAGGAGACAATACCGGAAGGAACCCGCGCTATGACGGCAATAAAAAGACAGAATAAAACGCACGGTGTTGGGTCGTTTGTTCATAAACGCGGGGTTCGGTCCCAGGGCTGGCACTCTGTCGATACCCCACCGAGACCCCATTGGGGCCAATACGCCCGCGTTTCTTCCTTTTCCCCACCCCACCCCCCAAGTTCGGGTGAAGGCCCAGGGCTCGCAGCCAACGTCGGGGCGGCAGGCCCTGCCATAGCCTCAGGTTACTCATATATACTTTAGATTGATTTAAAACTTCATTTTTAATTTAAAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGACCAAAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAAAACCACCGCTACCAGCGGTGGTTTGTTTGCCGGATCAAGAGCTACCAACTCTTTTTCCGAAGGTAACTGGCTTCAGCAGAGCGCAGATACCAAATACTGTCCTTCTAGTGTAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTCGGGCTGAACGGGGGGTTCGTGCACACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGGAAACGCCTGGTATCTTTATAGTCCTGTCGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCTGGCCTTTTGCTGGCCTTTTGCTCACATGTTCTTTCCTGCGTTATCCCCTGATTCTGTGGATAACCGTATTACCGCCATGCAT 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**Supplementary File 3b.** DNA sequence of primers used to generate plasmids in this study.

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| **Plasmid** | **Cloning Method** | **Primer DNA Sequence (5'-3')** |
| PDPK1-eGFP | Gibson Assembly | ATGGCCAGGACCACCAGCCAGCTG |
| CTGCACAGCGGCGTCCGGGTGGCTCT |
| CAGCTGGCTGGTGGTCCTGGCCATGGTGGCGACCGGTAGCGCTAG |
| AGAGCCACCCGGACGCCGCTGTGCAGGTGAGCAAGGGCGAGGAGCTGTTCAC |
| IRS1-eGFP | Gibson Assembly | CTAGCGCTACCGGTCGCCACCATGGCGAGCCCTCCGGAGA |
| GTGAACAGCTCCTCGCCCTTGCTCACCTGACGGTCCTCTGGCTGCTTCTGG |
| GGTGGCGACCGGTAGCGCTAG |
| GTGAGCAAGGGCGAGGAGCTGTTCAC |
| IRS2-eGFP | Gibson Assembly | CTAGCGCTACCGGTCGCCACCATGGCTTCCCCCCCAAGGCA |
| GTGAACAGCTCCTCGCCCTTGCTCACTTCCTTCACGATAGTTGCTTCCTTCAG |
| GGTGGCGACCGGTAGCGCTAG |
| GTGAGCAAGGGCGAGGAGCTGTTCAC |
| IRS2-FLAG | Gibson Assembly | TTATTTGTCGTCGTCGTCTTTATAGTCTTCCTTCACGATAGTTGCTTCC |
| GACTATAAAGACGACGACGACAAATAATCAGCCATACCACATTTGTAG |
| CAGGATGATCTGGACGAAGAGC |
| GCTCTTCGTCCAGATCATCCTG |
| PDPK1-TagRFP-T | Gibson Assembly | AGAGCCACCCGGACGCCGCTGTGCAGGTGTCTAAGGGCGAAGAGCTG |
| CCTCTACAAATGTGGTATGGCTGATTTCACTTGTACAGCTCGTCCATGCCA |
| AATCAGCCATACCACATTTGTAGAGG |
| CTGCACAGCGGCGTCCGGGTGGCTCT |
| IRS1-eGFP DelPH | Gibson Assembly | CATGGTGGCGACCGGTAGCGCTAG |
| CTAGCGCTACCGGTCGCCACCATGCGTGCTAAGGGCCACCACGAC |
| CAGGATGATCTGGACGAAGAGC |
| GCTCTTCGTCCAGATCATCCTG |
| IRS1-eGFP DelPTB | Gibson Assembly | ACGAGGACTGGCTCTTGCTGCGAGGGAATGCGGGTCCTGGGGGCACGTCA |
| CCTCGCAGCAAGAGCCAGTCCTCGT |
| CAGGATGATCTGGACGAAGAGC |
| GCTCTTCGTCCAGATCATCCTG |
| TagRFP-T-Akt2 W80A | Site Directed Mutagenesis | CATACGCTGCCTGCAGGCGACCACAGTCATCGAGAGG |
| TagRFP-T-Akt2 W80A-T309A | Site Directed Mutagenesis | CATACGCTGCCTGCAGGCGACCACAGTCATCGAGAGG |
| GCATCAGTGACGGGGCCACCATGAAAGCCTTCTGTGGGACC |
| TagRFP-T-Akt2 W80A-S474A | Site Directed Mutagenesis | CATACGCTGCCTGCAGGCGACCACAGTCATCGAGAGG |
| ACTCGCGGATGCTGGCCGAGTAGGCGAACTGGGGGAAGTGGGTCCGCTGGTCCAGCTC |
| TagRFP-T-Akt2 W80A-T309A-S474A | Site Directed Mutagenesis | CATACGCTGCCTGCAGGCGACCACAGTCATCGAGAGG |
| GCATCAGTGACGGGGCCACCATGAAAGCCTTCTGTGGGACC |
| ACTCGCGGATGCTGGCCGAGTAGGCGAACTGGGGGAAGTGGGTCCGCTGGTCCAGCTC |
| IRS1-eGFP 6P | Site Directed Mutagenesis | GAGTGATGAGTTCCGCCCTCGCAGCAAGGCCCAGTCCTCGTCCAACTGCTC |
| CTGACCCGCCGATCACGCACTGAGGCCATCACCGCCACCTCCCCGGCCAGCA |
| GGACATGGTGCCTTCGCCGTCAGCGGAGGCGCGGACACGGAAGGAGCCTGGCT |
| GGTAATGGTAGGGGATGTGCCTGCCGCGTGAGCTCTCTTTCGGAACCGATTATCCAG |
| CACTGGGTGTTGAGGAGAAAGTCTCGGCGCTATGCCTCCGCCGGCACCCTTGTG |
| IRS1-eGFP S270A | Site Directed Mutagenesis | GAGTGATGAGTTCCGCCCTCGCAGCAAGGCCCAGTCCTCGTCCAACTGCTC |
| IRS1-eGFP S307A | Site Directed Mutagenesis | CTGACCCGCCGATCACGCACTGAGGCCATCACCGCCACCTCCCCGGCCAGCA |
| IRS1-eGFP S330A | Site Directed Mutagenesis | GGACATGGTGCCTTCGCCGTCAGCGGAGGCGCGGACACGGAAGGAGCCTGGCT |
| IRS1-eGFP T525A | Site Directed Mutagenesis | GGTAATGGTAGGGGATGTGCCTGCCGAGTGAGCTCTCTTTCGGAACCGATTATCCAG |
| IRS1-eGFP S527A | Site Directed Mutagenesis | GGTAATGGTAGGGGATGTGCCTGCCGCGTGAGTTCTCTTTCGGAACCGATTATCCAG |
| IRS1-eGFP S1101A | Site Directed Mutagenesis | CACTGGGTGTTGAGGAGAAAGTCTCGGCGCTATGCCTCCGCCGGCACCCTTGTG |
| IRS1-eGFP S270/527A | Site Directed Mutagenesis | GAGTGATGAGTTCCGCCCTCGCAGCAAGGCCCAGTCCTCGTCCAACTGCTC |
| GGTAATGGTAGGGGATGTGCCTGCCGCGTGAGTTCTCTTTCGGAACCGATTATCCAG |
| IRS2-eGFP 5P | Site Directed Mutagenesis | CTGTTTGAGTTCCGCCCCCGATCAAAGGCCCAGAGCTCCGGATCTAGTGCAACC |
| CTGGTGCGACGGTCACGAACTGACGCCCTGGCAGCAACCCCACCTGCTGCAAAATGC |
| CAGCTGCTCCCCCATCGCCCTCGGCGGCTGTTCTCACCCGACAGCTTG |
| CTGTCGTGCTGGTGTGGTCAGAGCGTAAGTGCGCTTCCTCAGGCCCCTATC |
| GGTAGTTGTTGAGCTGAAGGTCTCAGCGGAGTGTCGTCGTCGTCCTCCCTGTGGA |
| IRS2-eGFP S306A | Site Directed Mutagenesis | CTGTTTGAGTTCCGCCCCCGATCAAAGGCCCAGAGCTCCGGATCTAGTGCAACC |
| IRS2-eGFP S346A | Site Directed Mutagenesis | CTGGTGCGACGGTCACGAACTGACGCCCTGGCAGCAACCCCACCTGCTGCAAAATGC |
| IRS2-eGFP S365A | Site Directed Mutagenesis | CAGCTGCTCCCCCATCGCCCTCGGCGGCTGTTCTCACCCGACAGCTTG |
| IRS2-eGFP S577A | Site Directed Mutagenesis | CTGTCGTGCTGGTGTGGTCAGAGCGTAAGTGCGCTTCCTCAGGCCCCTATC |
| IRS2-eGFP S1149A | Site Directed Mutagenesis | GGTAGTTGTTGAGCTGAAGGTCTCAGCGGAGTGTCGTCGTCGTCCTCCCTGTGGA |
| IRS2-eGFP S306/577A | Site Directed Mutagenesis | CTGTTTGAGTTCCGCCCCCGATCAAAGGCCCAGAGCTCCGGATCTAGTGCAACC |
| CTGTCGTGCTGGTGTGGTCAGAGCGTAAGTGCGCTTCCTCAGGCCCCTATC |