**CIRCUIT 1: T14 PRHAM FORU GFP**

Benchling link: <https://benchling.com/s/seq-uBpUgt7Qef68OqfhwOVt?m=slm-crpNGFWIaIayE97t7Bvn>

TCACACTGGCTCACCTTCGGGTGGGCCTTTCTGCGTTTATATACTAGAGAGAGAATATAAAAAGCCAGATTATTAATCCGGCTTTTTTATTATTTtactagagCCACAATTCAGCAAATTGTGAACATCATCACGTTCATCTTTCCCTGGTTGCCAATGGCCCATTTTCCTGTCAGTAACGAGAAGGTCGCGTATTCAGGCGCTTTTTAGACTGGTCGTAATGAAtactagagGGACAAGCAATGCTTGCCTTGAATAGTAACTTTTGAATAGTGATTCAGGAGGtactagagATGCGTAAAGGAGAAGAACTTTTCACTGGAGTTGTCCCAATTCTTGTTGAATTAGATGGTGATGTTAATGGGCACAAATTTTCTGTCAGTGGAGAGGGTGAAGGTGATGCAACATACGGAAAACTTACCCTTAAATTTATTTGCACTACTGGAAAACTACCTGTTCCATGGCCAACACTTGTCACTACTTTCGGTTATGGTGTTCAATGCTTTGCGAGATACCCAGATCATATGAAACAGCATGACTTTTTCAAGAGTGCCATGCCCGAAGGTTATGTACAGGAAAGAACTATATTTTTCAAAGATGACGGGAACTACAAGACACGTGCTGAAGTCAAGTTTGAAGGTGATACCCTTGTTAATAGAATCGAGTTAAAAGGTATTGATTTTAAAGAAGATGGAAACATTCTTGGACACAAATTGGAATACAACTATAACTCACACAATGTATACATCATGGCAGACAAACAAAAGAATGGAATCAAAGTTAACTTCAAAATTAGACACAACATTGAAGATGGAAGCGTTCAACTAGCAGACCATTATCAACAAAATACTCCAATTGGCGATGGCCCTGTCCTTTTACCAGACAACCATTACCTGTCCACACAATCTGCCCTTTCGAAAGATCCCAACGAAAAGAGAGACCACATGGTCCTTCTTGAGTTTGTAACAGCTGCTGGGATTACACATGGCATGGATGAACTATACAAATAATAA

**CIRCUIT 2: T14 PTET FORU GFP**

Benchling link: <https://benchling.com/s/seq-vJpiUKB5tLo3ToaMb5Ao?m=slm-ptZTwCg7YAnvyhaekz7g>

TCACACTGGCTCACCTTCGGGTGGGCCTTTCTGCGTTTATATACTAGAGAGAGAATATAAAAAGCCAGATTATTAATCCGGCTTTTTTATTATTTtactagagTCCCTATCAGTGATAGAGATTGACATCCCTATCAGTGATAGAGATACTGAGCACtactagagGGACAAGCAATGCTTGCCTTGAATAGTAACTTTTGAATAGTGATTCAGGAGGtactagagATGCGTAAAGGAGAAGAACTTTTCACTGGAGTTGTCCCAATTCTTGTTGAATTAGATGGTGATGTTAATGGGCACAAATTTTCTGTCAGTGGAGAGGGTGAAGGTGATGCAACATACGGAAAACTTACCCTTAAATTTATTTGCACTACTGGAAAACTACCTGTTCCATGGCCAACACTTGTCACTACTTTCGGTTATGGTGTTCAATGCTTTGCGAGATACCCAGATCATATGAAACAGCATGACTTTTTCAAGAGTGCCATGCCCGAAGGTTATGTACAGGAAAGAACTATATTTTTCAAAGATGACGGGAACTACAAGACACGTGCTGAAGTCAAGTTTGAAGGTGATACCCTTGTTAATAGAATCGAGTTAAAAGGTATTGATTTTAAAGAAGATGGAAACATTCTTGGACACAAATTGGAATACAACTATAACTCACACAATGTATACATCATGGCAGACAAACAAAAGAATGGAATCAAAGTTAACTTCAAAATTAGACACAACATTGAAGATGGAAGCGTTCAACTAGCAGACCATTATCAACAAAATACTCCAATTGGCGATGGCCCTGTCCTTTTACCAGACAACCATTACCTGTCCACACAATCTGCCCTTTCGAAAGATCCCAACGAAAAGAGAGACCACATGGTCCTTCTTGAGTTTGTAACAGCTGCTGGGATTACACATGGCATGGATGAACTATACAAATAATAA

**CIRCUIT 3 SPECIFIC PART: T14 PRHAM FORU BXB1**

Benchling link: <https://benchling.com/s/seq-8XUMH5WjZ1mVXIwQhVeG?m=slm-kpLZa9cyVgY3Qlc28gFk>

TCACACTGGCTCACCTTCGGGTGGGCCTTTCTGCGTTTATATACTAGAGAGAGAATATAAAAAGCCAGATTATTAATCCGGCTTTTTTATTATTTtactagagCCACAATTCAGCAAATTGTGAACATCATCACGTTCATCTTTCCCTGGTTGCCAATGGCCCATTTTCCTGTCAGTAACGAGAAGGTCGCGTATTCAGGCGCTTTTTAGACTGGTCGTAATGAAtactagagGGACAAGCAATGCTTGCCTTGAATAGTAACTTTTGAATAGTGATTCAGGAGGtactagagATGCGGGCCCTGGTGGTCATCAGGCTGTCTCGGGTGACAGACGCCACCACATCTCCTGAGAGACAGCTGGAGAGCTGCCAGCAGCTGTGCGCACAGAGGGGATGGGATGTGGTGGGAGTGGCAGAGGATCTGGACGTGAGCGGCGCCGTGGATCCATTCGACAGAAAGCGGAGACCCAACCTGGCAAGGTGGCTGGCCTTCGAGGAGCAGCCCTTTGATGTGATCGTGGCCTACAGAGTGGACAGGCTGACCCGCTCCATCAGGCACCTCCAGCAGCTGGTGCACTGGGCCGAGGACCACAAGAAGCTGGTGGTGTCTGCCACAGAGGCCCACTTCGATACCACAACCCCCTTCGCCGCCGTGGTCATCGCCCTGATGGGAACCGTGGCACAGATGGAGCTGGAGGCCATCAAGGAGCGGAACAGAAGCGCCGCCCACTTCAATATCAGAGCCGGCAAGTACAGGGGATCCCTGCCACCTTGGGGATATCTGCCTACCAGGGTGGATGGAGAGTGGCGGCTGGTGCCAGACCCAGTGCAGAGGGAGCGCATCCTGGAGGTGTACCACAGGGTGGTGGATAACCACGAGCCACTGCACCTGGTGGCCCACGACCTGAATAGGCGCGGCGTGCTGTCTCCAAAGGATTATTTTGCACAGCTCCAGGGAAGGGAGCCACAGGGACGGGAGTGGAGCGCCACAGCCCTGAAGAGATCTATGATCAGCGAGGCCATGCTGGGCTATGCCACACTGAATGGCAAGACCGTGAGGGACGATGACGGAGCACCCCTGGTGCGGGCAGAGCCTATCCTGACCAGAGAGCAGCTGGAGGCCCTGAGGGCAGAGCTGGTGAAGACATCCCGCGCAAAGCCTGCCGTGTCCACCCCATCTCTGCTGCTGCGGGTGCTGTTCTGCGCCGTGTGCGGAGAGCCAGCATACAAGTTTGCAGGAGGAGGAAGGAAGCACCCACGGTATAGATGCAGGTCTATGGGCTTCCCTAAGCACTGTGGCAACGGAACAGTGGCAATGGCAGAGTGGGACGCCTTTTGCGAGGAGCAGGTGCTGGATCTGCTGGGCGACGCAGAGCGGCTGGAGAAAGTGTGGGTGGCAGGAAGCGACTCCGCCGTGGAGCTGGCAGAAGTGAATGCAGAGCTGGTGGATCTGACCAGCCTGATCGGATCCCCTGCATACAGAGCAGGAAGCCCACAGAGGGAGGCCCTGGACGCAAGGATCGCCGCCCTGGCAGCACGCCAGGAGGAGCTGGAGGGCCTGGAGGCCCGGCCCTCCGGCTGGGAGTGGAGAGAGACAGGCCAGAGGTTTGGCGATTGGTGGCGGGAGCAGGACACAGCCGCCAAGAACACCTGGCTGCGCAGCATGAATGTGCGGCTGACCTTCGATGTGAGAGGCGGCCTGACAAGGACCATCGATTTTGGCGACCTCCAGGAGTATGAGCAGCACCTGAGGCTGGGATCCGTGGTGGAGCGGCTGCACACCGGCATGTCT

**CIRCUIT 4 SPECIFIC PART: T14 PTET FORU BXB1**

Benchling link: <https://benchling.com/s/seq-wQUgpUmo5sjMwJpmFYR3?m=slm-nsn3et3gCCGKze6FOsBc>

TCACACTGGCTCACCTTCGGGTGGGCCTTTCTGCGTTTATATACTAGAGAGAGAATATAAAAAGCCAGATTATTAATCCGGCTTTTTTATTATTTtactagagTCCCTATCAGTGATAGAGATTGACATCCCTATCAGTGATAGAGATACTGAGCACtactagagGGACAAGCAATGCTTGCCTTGAATAGTAACTTTTGAATAGTGATTCAGGAGGtactagagATGCGGGCCCTGGTGGTCATCAGGCTGTCTCGGGTGACAGACGCCACCACATCTCCTGAGAGACAGCTGGAGAGCTGCCAGCAGCTGTGCGCACAGAGGGGATGGGATGTGGTGGGAGTGGCAGAGGATCTGGACGTGAGCGGCGCCGTGGATCCATTCGACAGAAAGCGGAGACCCAACCTGGCAAGGTGGCTGGCCTTCGAGGAGCAGCCCTTTGATGTGATCGTGGCCTACAGAGTGGACAGGCTGACCCGCTCCATCAGGCACCTCCAGCAGCTGGTGCACTGGGCCGAGGACCACAAGAAGCTGGTGGTGTCTGCCACAGAGGCCCACTTCGATACCACAACCCCCTTCGCCGCCGTGGTCATCGCCCTGATGGGAACCGTGGCACAGATGGAGCTGGAGGCCATCAAGGAGCGGAACAGAAGCGCCGCCCACTTCAATATCAGAGCCGGCAAGTACAGGGGATCCCTGCCACCTTGGGGATATCTGCCTACCAGGGTGGATGGAGAGTGGCGGCTGGTGCCAGACCCAGTGCAGAGGGAGCGCATCCTGGAGGTGTACCACAGGGTGGTGGATAACCACGAGCCACTGCACCTGGTGGCCCACGACCTGAATAGGCGCGGCGTGCTGTCTCCAAAGGATTATTTTGCACAGCTCCAGGGAAGGGAGCCACAGGGACGGGAGTGGAGCGCCACAGCCCTGAAGAGATCTATGATCAGCGAGGCCATGCTGGGCTATGCCACACTGAATGGCAAGACCGTGAGGGACGATGACGGAGCACCCCTGGTGCGGGCAGAGCCTATCCTGACCAGAGAGCAGCTGGAGGCCCTGAGGGCAGAGCTGGTGAAGACATCCCGCGCAAAGCCTGCCGTGTCCACCCCATCTCTGCTGCTGCGGGTGCTGTTCTGCGCCGTGTGCGGAGAGCCAGCATACAAGTTTGCAGGAGGAGGAAGGAAGCACCCACGGTATAGATGCAGGTCTATGGGCTTCCCTAAGCACTGTGGCAACGGAACAGTGGCAATGGCAGAGTGGGACGCCTTTTGCGAGGAGCAGGTGCTGGATCTGCTGGGCGACGCAGAGCGGCTGGAGAAAGTGTGGGTGGCAGGAAGCGACTCCGCCGTGGAGCTGGCAGAAGTGAATGCAGAGCTGGTGGATCTGACCAGCCTGATCGGATCCCCTGCATACAGAGCAGGAAGCCCACAGAGGGAGGCCCTGGACGCAAGGATCGCCGCCCTGGCAGCACGCCAGGAGGAGCTGGAGGGCCTGGAGGCCCGGCCCTCCGGCTGGGAGTGGAGAGAGACAGGCCAGAGGTTTGGCGATTGGTGGCGGGAGCAGGACACAGCCGCCAAGAACACCTGGCTGCGCAGCATGAATGTGCGGCTGACCTTCGATGTGAGAGGCGGCCTGACAAGGACCATCGATTTTGGCGACCTCCAGGAGTATGAGCAGCACCTGAGGCTGGGATCCGTGGTGGAGCGGCTGCACACCGGCATGTCT

**CIRCUIT 5 (CIRCUIT 3/4 COMMON PART): T14 PTET ATTP rev. T14 ATTB rev. RBS34 GFP**

Benchling link: <https://benchling.com/s/seq-6O6PuF5H3aDFSW1TGpOG?m=slm-JsZuoSiClZAelWX4NyZN>

TCACACTGGCTCACCTTCGGGTGGGCCTTTCTGCGTTTATATACTAGAGAGAGAATATAAAAAGCCAGATTATTAATCCGGCTTTTTTATTATTTtactagagTCCCTATCAGTGATAGAGATTGACATCCCTATCAGTGATAGAGATACTGAGCACtactagagGGGTTTGTACCGTACACCACTGAGACCGCGGTGGTTGACCAGACAAACCACGAtactagagTCACACTGGCTCACCTTCGGGTGGGCCTTTCTGCGTTTATATACTAGAGAGAGAATATAAAAAGCCAGATTATTAATCCGGCTTTTTTATTATTTtactagagGCCCGGATGATCCTGACGACGGAGACCGCCGTCGTCGACAAGCCGGCCGAtactagagAAAGAGGAGAAAtactagagATGCGTAAAGGAGAAGAACTTTTCACTGGAGTTGTCCCAATTCTTGTTGAATTAGATGGTGATGTTAATGGGCACAAATTTTCTGTCAGTGGAGAGGGTGAAGGTGATGCAACATACGGAAAACTTACCCTTAAATTTATTTGCACTACTGGAAAACTACCTGTTCCATGGCCAACACTTGTCACTACTTTCGGTTATGGTGTTCAATGCTTTGCGAGATACCCAGATCATATGAAACAGCATGACTTTTTCAAGAGTGCCATGCCCGAAGGTTATGTACAGGAAAGAACTATATTTTTCAAAGATGACGGGAACTACAAGACACGTGCTGAAGTCAAGTTTGAAGGTGATACCCTTGTTAATAGAATCGAGTTAAAAGGTATTGATTTTAAAGAAGATGGAAACATTCTTGGACACAAATTGGAATACAACTATAACTCACACAATGTATACATCATGGCAGACAAACAAAAGAATGGAATCAAAGTTAACTTCAAAATTAGACACAACATTGAAGATGGAAGCGTTCAACTAGCAGACCATTATCAACAAAATACTCCAATTGGCGATGGCCCTGTCCTTTTACCAGACAACCATTACCTGTCCACACAATCTGCCCTTTCGAAAGATCCCAACGAAAAGAGAGACCACATGGTCCTTCTTGAGTTTGTAACAGCTGCTGGGATTACACATGGCATGGATGAACTATACAAATAATAA

**CIRCUIT C6: T14 PTET RBS34 GFP**

Benchling link: <https://benchling.com/s/seq-qqYCNyLz0YsT1is62Uff?m=slm-gR7utvp6ZVp0r9o0eEBa>

TCACACTGGCTCACCTTCGGGTGGGCCTTTCTGCGTTTATATACTAGAGAGAGAATATAAAAAGCCAGATTATTAATCCGGCTTTTTTATTATTTtactagagTCCCTATCAGTGATAGAGATTGACATCCCTATCAGTGATAGAGATACTGAGCACtactagagAAAGAGGAGAAAtactagagATGCGTAAAGGAGAAGAACTTTTCACTGGAGTTGTCCCAATTCTTGTTGAATTAGATGGTGATGTTAATGGGCACAAATTTTCTGTCAGTGGAGAGGGTGAAGGTGATGCAACATACGGAAAACTTACCCTTAAATTTATTTGCACTACTGGAAAACTACCTGTTCCATGGCCAACACTTGTCACTACTTTCGGTTATGGTGTTCAATGCTTTGCGAGATACCCAGATCATATGAAACAGCATGACTTTTTCAAGAGTGCCATGCCCGAAGGTTATGTACAGGAAAGAACTATATTTTTCAAAGATGACGGGAACTACAAGACACGTGCTGAAGTCAAGTTTGAAGGTGATACCCTTGTTAATAGAATCGAGTTAAAAGGTATTGATTTTAAAGAAGATGGAAACATTCTTGGACACAAATTGGAATACAACTATAACTCACACAATGTATACATCATGGCAGACAAACAAAAGAATGGAATCAAAGTTAACTTCAAAATTAGACACAACATTGAAGATGGAAGCGTTCAACTAGCAGACCATTATCAACAAAATACTCCAATTGGCGATGGCCCTGTCCTTTTACCAGACAACCATTACCTGTCCACACAATCTGCCCTTTCGAAAGATCCCAACGAAAAGAGAGACCACATGGTCCTTCTTGAGTTTGTAACAGCTGCTGGGATTACACATGGCATGGATGAACTATACAAATAATAA

**CIRCUIT C7: T14 PRHAM FORU LYTIC PROTEIN RBS34 GFP**

Benchling link: <https://benchling.com/s/seq-EkAvzKNin2X4gliueodv?m=slm-6j8Au18pQPzKNNpq20Ct>

TCACACTGGCTCACCTTCGGGTGGGCCTTTCTGCGTTTATATACTAGAGAGAGAATATAAAAAGCCAGATTATTAATCCGGCTTTTTTATTATTTtactagagCCACAATTCAGCAAATTGTGAACATCATCACGTTCATCTTTCCCTGGTTGCCAATGGCCCATTTTCCTGTCAGTAACGAGAAGGTCGCGTATTCAGGCGCTTTTTAGACTGGTCGTAATGAAtactagagGGACAAGCAATGCTTGCCTTGAATAGTAACTTTTGAATAGTGATTCAGGAGGtactagagATGGTAAGGTGGACATTATGGGATACTCTAGCGTTTCTGTTGTTGCTGTCCCTCTTGCTTCCATCTCTGCTGATTATGTTTATCCCGTCGACCTTCAAACGTCCGGTTAGCTCCTGGAAGGCGCTGAATCTGCGTAAGACCCTGTTAATGGCAAGCAGCGTTCGCCTGAAACCGCTGAATTGCAGCCGTCTGCCGTGTGTGTATGCTCAAGAGACTCTGACCTTCCTGTTGACCCAGAAAAAGACGTGCGTCAAGAACTACGTGCGCAAAGAATAATGAtactagagAAAGAGGAGAAAtactagagATGCGTAAAGGAGAAGAACTTTTCACTGGAGTTGTCCCAATTCTTGTTGAATTAGATGGTGATGTTAATGGGCACAAATTTTCTGTCAGTGGAGAGGGTGAAGGTGATGCAACATACGGAAAACTTACCCTTAAATTTATTTGCACTACTGGAAAACTACCTGTTCCATGGCCAACACTTGTCACTACTTTCGGTTATGGTGTTCAATGCTTTGCGAGATACCCAGATCATATGAAACAGCATGACTTTTTCAAGAGTGCCATGCCCGAAGGTTATGTACAGGAAAGAACTATATTTTTCAAAGATGACGGGAACTACAAGACACGTGCTGAAGTCAAGTTTGAAGGTGATACCCTTGTTAATAGAATCGAGTTAAAAGGTATTGATTTTAAAGAAGATGGAAACATTCTTGGACACAAATTGGAATACAACTATAACTCACACAATGTATACATCATGGCAGACAAACAAAAGAATGGAATCAAAGTTAACTTCAAAATTAGACACAACATTGAAGATGGAAGCGTTCAACTAGCAGACCATTATCAACAAAATACTCCAATTGGCGATGGCCCTGTCCTTTTACCAGACAACCATTACCTGTCCACACAATCTGCCCTTTCGAAAGATCCCAACGAAAAGAGAGACCACATGGTCCTTCTTGAGTTTGTAACAGCTGCTGGGATTACACATGGCATGGATGAACTATACAAATAATAA

**CIRCUIT C8 SPECIFIC PART: T14 PTET ATTP rev. T14 ATTB rev. RBS32 LYTIC PROTEIN RBS34 GFP**

Benchling link: <https://benchling.com/s/seq-tygb1R35FHad2lbk9Z4n?m=slm-weTFpXZz0dxqxvlWG1Lf>

TCACACTGGCTCACCTTCGGGTGGGCCTTTCTGCGTTTATATACTAGAGAGAGAATATAAAAAGCCAGATTATTAATCCGGCTTTTTTATTATTTtactagagTCCCTATCAGTGATAGAGATTGACATCCCTATCAGTGATAGAGATACTGAGCACtactagagGGGTTTGTACCGTACACCACTGAGACCGCGGTGGTTGACCAGACAAACCACGAtactagagTCACACTGGCTCACCTTCGGGTGGGCCTTTCTGCGTTTATATACTAGAGAGAGAATATAAAAAGCCAGATTATTAATCCGGCTTTTTTATTATTTtactagagGCCCGGATGATCCTGACGACGGAGACCGCCGTCGTCGACAAGCCGGCCGAtactagagTCACACAGGAAAGtactagagATGGTAAGGTGGACATTATGGGATACTCTAGCGTTTCTGTTGTTGCTGTCCCTCTTGCTTCCATCTCTGCTGATTATGTTTATCCCGTCGACCTTCAAACGTCCGGTTAGCTCCTGGAAGGCGCTGAATCTGCGTAAGACCCTGTTAATGGCAAGCAGCGTTCGCCTGAAACCGCTGAATTGCAGCCGTCTGCCGTGTGTGTATGCTCAAGAGACTCTGACCTTCCTGTTGACCCAGAAAAAGACGTGCGTCAAGAACTACGTGCGCAAAGAATAATGAtactagagAAAGAGGAGAAAtactagagATGCGTAAAGGAGAAGAACTTTTCACTGGAGTTGTCCCAATTCTTGTTGAATTAGATGGTGATGTTAATGGGCACAAATTTTCTGTCAGTGGAGAGGGTGAAGGTGATGCAACATACGGAAAACTTACCCTTAAATTTATTTGCACTACTGGAAAACTACCTGTTCCATGGCCAACACTTGTCACTACTTTCGGTTATGGTGTTCAATGCTTTGCGAGATACCCAGATCATATGAAACAGCATGACTTTTTCAAGAGTGCCATGCCCGAAGGTTATGTACAGGAAAGAACTATATTTTTCAAAGATGACGGGAACTACAAGACACGTGCTGAAGTCAAGTTTGAAGGTGATACCCTTGTTAATAGAATCGAGTTAAAAGGTATTGATTTTAAAGAAGATGGAAACATTCTTGGACACAAATTGGAATACAACTATAACTCACACAATGTATACATCATGGCAGACAAACAAAAGAATGGAATCAAAGTTAACTTCAAAATTAGACACAACATTGAAGATGGAAGCGTTCAACTAGCAGACCATTATCAACAAAATACTCCAATTGGCGATGGCCCTGTCCTTTTACCAGACAACCATTACCTGTCCACACAATCTGCCCTTTCGAAAGATCCCAACGAAAAGAGAGACCACATGGTCCTTCTTGAGTTTGTAACAGCTGCTGGGATTACACATGGCATGGATGAACTATACAAATAATAA

LIST OF THE SPECIFIC PARTS.

All of them have been ordered to IDT (Integrated DNA Technologies). All sequences have been sequenced and verified by IDT. Circuits above have been built by linking these parts through cloning.

|  |  |
| --- | --- |
| Part name | Sequence |
| t14 | TCACACTGGCTCACCTTCGGGTGGGCCTTTCTGCGTTTATATACTAGAGAGAGAATATAAAAAGCCAGATTATTAATCCGGCTTTTTTATTATTT |
| Prham | CCACAATTCAGCAAATTGTGAACATCATCACGTTCATCTTTCCCTGGTTGCCAATGGCCCATTTTCCTGTCAGTAACGAGAAGGTCGCGTATTCAGGCGCTTTTTAGACTGGTCGTAATGAA |
| ForU | GGACAAGCAATGCTTGCCTTGAATAGTAACTTTTGAATAGTGATTCAGGAGG |
| GFP | ATGCGTAAAGGAGAAGAACTTTTCACTGGAGTTGTCCCAATTCTTGTTGAATTAGATGGTGATGTTAATGGGCACAAATTTTCTGTCAGTGGAGAGGGTGAAGGTGATGCAACATACGGAAAACTTACCCTTAAATTTATTTGCACTACTGGAAAACTACCTGTTCCATGGCCAACACTTGTCACTACTTTCGGTTATGGTGTTCAATGCTTTGCGAGATACCCAGATCATATGAAACAGCATGACTTTTTCAAGAGTGCCATGCCCGAAGGTTATGTACAGGAAAGAACTATATTTTTCAAAGATGACGGGAACTACAAGACACGTGCTGAAGTCAAGTTTGAAGGTGATACCCTTGTTAATAGAATCGAGTTAAAAGGTATTGATTTTAAAGAAGATGGAAACATTCTTGGACACAAATTGGAATACAACTATAACTCACACAATGTATACATCATGGCAGACAAACAAAAGAATGGAATCAAAGTTAACTTCAAAATTAGACACAACATTGAAGATGGAAGCGTTCAACTAGCAGACCATTATCAACAAAATACTCCAATTGGCGATGGCCCTGTCCTTTTACCAGACAACCATTACCTGTCCACACAATCTGCCCTTTCGAAAGATCCCAACGAAAAGAGAGACCACATGGTCCTTCTTGAGTTTGTAACAGCTGCTGGGATTACACATGGCATGGATGAACTATACAAATAATAA |
| Ptet | TCCCTATCAGTGATAGAGATTGACATCCCTATCAGTGATAGAGATACTGAGCAC |
| Bxb1 integrase | ATGCGGGCCCTGGTGGTCATCAGGCTGTCTCGGGTGACAGACGCCACCACATCTCCTGAGAGACAGCTGGAGAGCTGCCAGCAGCTGTGCGCACAGAGGGGATGGGATGTGGTGGGAGTGGCAGAGGATCTGGACGTGAGCGGCGCCGTGGATCCATTCGACAGAAAGCGGAGACCCAACCTGGCAAGGTGGCTGGCCTTCGAGGAGCAGCCCTTTGATGTGATCGTGGCCTACAGAGTGGACAGGCTGACCCGCTCCATCAGGCACCTCCAGCAGCTGGTGCACTGGGCCGAGGACCACAAGAAGCTGGTGGTGTCTGCCACAGAGGCCCACTTCGATACCACAACCCCCTTCGCCGCCGTGGTCATCGCCCTGATGGGAACCGTGGCACAGATGGAGCTGGAGGCCATCAAGGAGCGGAACAGAAGCGCCGCCCACTTCAATATCAGAGCCGGCAAGTACAGGGGATCCCTGCCACCTTGGGGATATCTGCCTACCAGGGTGGATGGAGAGTGGCGGCTGGTGCCAGACCCAGTGCAGAGGGAGCGCATCCTGGAGGTGTACCACAGGGTGGTGGATAACCACGAGCCACTGCACCTGGTGGCCCACGACCTGAATAGGCGCGGCGTGCTGTCTCCAAAGGATTATTTTGCACAGCTCCAGGGAAGGGAGCCACAGGGACGGGAGTGGAGCGCCACAGCCCTGAAGAGATCTATGATCAGCGAGGCCATGCTGGGCTATGCCACACTGAATGGCAAGACCGTGAGGGACGATGACGGAGCACCCCTGGTGCGGGCAGAGCCTATCCTGACCAGAGAGCAGCTGGAGGCCCTGAGGGCAGAGCTGGTGAAGACATCCCGCGCAAAGCCTGCCGTGTCCACCCCATCTCTGCTGCTGCGGGTGCTGTTCTGCGCCGTGTGCGGAGAGCCAGCATACAAGTTTGCAGGAGGAGGAAGGAAGCACCCACGGTATAGATGCAGGTCTATGGGCTTCCCTAAGCACTGTGGCAACGGAACAGTGGCAATGGCAGAGTGGGACGCCTTTTGCGAGGAGCAGGTGCTGGATCTGCTGGGCGACGCAGAGCGGCTGGAGAAAGTGTGGGTGGCAGGAAGCGACTCCGCCGTGGAGCTGGCAGAAGTGAATGCAGAGCTGGTGGATCTGACCAGCCTGATCGGATCCCCTGCATACAGAGCAGGAAGCCCACAGAGGGAGGCCCTGGACGCAAGGATCGCCGCCCTGGCAGCACGCCAGGAGGAGCTGGAGGGCCTGGAGGCCCGGCCCTCCGGCTGGGAGTGGAGAGAGACAGGCCAGAGGTTTGGCGATTGGTGGCGGGAGCAGGACACAGCCGCCAAGAACACCTGGCTGCGCAGCATGAATGTGCGGCTGACCTTCGATGTGAGAGGCGGCCTGACAAGGACCATCGATTTTGGCGACCTCCAGGAGTATGAGCAGCACCTGAGGCTGGGATCCGTGGTGGAGCGGCTGCACACCGGCATGTCT |
| attP reverse | GGGTTTGTACCGTACACCACTGAGACCGCGGTGGTTGACCAGACAAACCACGA |
| attB reverse | GCCCGGATGATCCTGACGACGGAGACCGCCGTCGTCGACAAGCCGGCCGA |
| RBS34 | AAAGAGGAGAAA |
| Lytic protein | ATGGTAAGGTGGACATTATGGGATACTCTAGCGTTTCTGTTGTTGCTGTCCCTCTTGCTTCCATCTCTGCTGATTATGTTTATCCCGTCGACCTTCAAACGTCCGGTTAGCTCCTGGAAGGCGCTGAATCTGCGTAAGACCCTGTTAATGGCAAGCAGCGTTCGCCTGAAACCGCTGAATTGCAGCCGTCTGCCGTGTGTGTATGCTCAAGAGACTCTGACCTTCCTGTTGACCCAGAAAAAGACGTGCGTCAAGAACTACGTGCGCAAAGAATAATGA |
| RBS32 | TCACACAGGAAAG |