

## Free Primers



| Primer Name      | Details   |
|------------------|---|
| 35sf             | ATGACGCACAATCCCACTATC<br>For people who work with plants                                      |
| 3'AOX1           | GCAAATGGCATTCTGACATCC (Invitrogen)<br>For Pichia vectors with AOX1 terminator, reverse primer |
| 5'AOX1           | GACTGGTCCAATTGACAAGC (Invitrogen)<br>For Pichia vectors with AOX1 promoter, forward primer    |
| AC5              | ACACAAAGCCGCTCCATCAG (Invitrogen)<br>Drosophila Actin 5C promoter, forward primer             |
| Alpha-factor     | TACTATTGCCAGCATTGCTGC (Invitrogen)<br>Alpha factor signal sequence, forward primer            |
| Amp-R            | ATAATACCGCGCCACATAGC<br>5' end of ampicillin resistance gene, reverse primer                  |
| AUG1 Forward     | CAATTACATCTTATTATTAAACG (Invitrogen)<br>For Pichia vectors with AUG1 promoter, forward primer |
| AUG1 Reverse     | GAAGAGAAAAACATTAGTTGGC (Invitrogen)<br>For Pichia vectors with AUG1 promoter, reverse primer  |
| BGH Reverse      | TAGAAGGCACAGTCGAGG (Invitrogen)<br>Bovine growth hormone terminator, reverse primer           |
| Bglob-intron-F   | CTGGTCATCATCCTGCCTT<br>Rabbit beta-globin intron, forward primer                              |
| Bglob-pA-R       | TTTTGGCAGAGGGAAAAAGA<br>Rabbit beta-globin polyA region, reverse primer                       |
| CAT-R            | GCAACTGACTGAAATGCCTC<br>5' end of chloramphenicol resistance gene, reverse primer             |
| CMV Forward      | CGCAAATGGCGGTAGGCGTG (Invitrogen)<br>Human CMV immediate early promoter, forward primer       |
| CRE-R            | GCAAACGGACAGAACATT<br>5' end of Cre recombinase, reverse primer                               |
| CYC1             | GCGTGAATGTAAGCGTGAC (Invitrogen)<br>CYC1 transcription termination signal, reverse primer     |
| DsRed1-C         | AGCTGGACATCACCTCCCACAACG (BD Biosciences)<br>3' end of DsRed1, forward primer                 |
| DsRed1-N         | GTACTGGAACTGGGGGACAG (BD Biosciences)<br>5' end of DsRed1, reverse primer                     |
| EBV Reverse      | GTGGTTTGTCCAAACTCATC (Invitrogen)<br>SV40 polyA terminator, reverse primer                    |
| Ecdysone Forward | CTCTGAATACTTCAACAAAGTTAC (Invitrogen)<br>Drosophila heat shock promoter, forward primer       |
| EF-1a Forward    | TCAAGCCTCAGACAGTGGTTC (Invitrogen)<br>Human elongation factor-1a promoter, forward primer     |
|                  | CATGGTCCTGCTGGAGTTCGTG (BD Biosciences)   |

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| EGFP-C      | 3' end of EGFP, forward primer  |
| EGFP-N      | CGTCGCCGTCCAGCTGACCAAG (BD Biosciences)<br>5' end of EGFP, reverse primer                       |
| EXFP-R      | GTCTTGTAGTTGCCGTCGTC (Golenbock lab)<br>For distinguishing EGFP vs ECFP vs EYFP, reverse primer |
| GAL1        | AATATAACCTCTATACTTTAACGTC (Invitrogen)<br><i>S. cerevisiae</i> GAL1 promoter, forward primer    |
| Gal10pro-F  | GGTGGTAATGCCATGTAATATG (Stratagene)<br><i>S. cerevisiae</i> GAL10 promoter, forward primer      |
| Gal4 N-term | GAGTAGTAACAAAGGTCAA<br>3' end of Gal4 DNA binding domain, forward primer                        |
| Gal4-AD     | AATACCACTACAATGGAT (BD Biosciences)<br>3' end of Gal4 activation domain, forward primer         |
| GFP-F       | GGTCCTTCTTGAGTTGTAAC<br>3' end of GFP, forward primer   |
| GFP-R       | CCATCTAATTCAACAAGAATTGGGACAAC (Ahmad lab)<br>5' end of GFP, reverse primer                      |
| GPDpro-F    | CGGTAGGTATTGATTGTAATTCTG<br><i>S. cerevisiae</i> GPD promoter, forward primer                   |
| GW-3'       | GCATGATGACCACCGATATG<br>3' end of Gateway cassette, forward primer                              |
| GW-5'       | AATCTGCCGGATCCTAACT<br>5' end of Gateway cassette, reverse primer                               |
| H1          | TCGCTATGTGTTCTGGAAA<br>Human H1 promoter, forward primer  |
| HA-F        | TACCCATACGACGTCCCAGA<br>HA tag, forward primer  |
| HA-R        | TCTGGGACGTCGTATGGGTA<br>HA tag, reverse primer  |
| HAT         | GAGGAGCACGCTCATGCCAC (BD Biosciences)<br>Histidine affinity tag, forward primer                 |
| hGH-PA-R    | CCAGCTTGGTCCCAATAGA<br>Human growth hormone terminator, reverse primer                          |
| IRES-F      | TGGCTCTCCTCAAGCGTATT<br>3' end of IRES, forward primer  |
| IRES-R      | CCTCACATTGCCAAAAGACG<br>5' end of IRES, reverse primer  |
| L4440       | AGCGAGTCAGTGAGCGAG (Caldwell lab)<br>5' of MCS in L4440 vector, forward primer                  |
| LacZ-R      | GACAGTATCGGCCTCAGGAA<br>5' end of LacZ, reverse primer  |
| LexA        | CGTCAGCAGAGCTTCACCATTG (Caldwell lab)<br>3' end of LexA DNA binding domain, forward primer      |
|             | GAATTCATATGCTTACCGT (Weinberg Lab)  |

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| LKO.1 5'          | Human U6 promoter, forward primer   |
| LNCX              | AGCTCGTTAGTGAACCGTCAGATC (BD Biosciences)<br>Human CMV promoter, forward primer           |
| Luc-F             | AGTCAAGTAACAACCGCGA<br>3' end of luciferase, forward primer                               |
| LucNrev           | CCTTATGCAGTTGCTCTCC<br>5' end of luciferase, reverse primer                               |
| M13 (-21) Forward | TGTAAAACGACGGCCAGT<br>In lacZ gene  |
| M13 (-40)         | GTTTCCCAGTCACGAC<br>In lacZ gene  |
| M13 Reverse       | CAGGAAACAGCTATGAC<br>In lacZ gene   |
| M13/pUC Forward   | CCCAGTCACGACGTTGAAAACG (Invitrogen)<br>In lacZ gene                                       |
| M13/pUC Reverse   | AGCGGATAACAATTCACACAGG (Invitrogen)<br>In lacZ gene                                       |
| MBP-F             | GATGAAGCCCTGAAAGACGCGCAG (Waugh lab)<br>3' end of maltose binding protein, forward primer |
| MT Forward        | CATCTCAGTGCAACTAAA (Invitrogen)<br>Drosophila metallothionein promoter, forward primer    |
| MMLV-F            | ATCAGTCGCTCTCGCTTC<br>Moloney murine leukemia virus LTR (MoMuLV), forward primer          |
| mPGK-F            | CATTCTGCACGCTTCAAAAG<br>Mouse PGK promoter, forward primer                                |
| MSCV              | CCCTGAAACCTCCTCGTCGACC (BD Biosciences)<br>Murine stem cell virus, forward primer         |
| MSCV-rev          | CAGCGGGCTGCTAAAGCGCATGC<br>Murine stem cell virus, reverse primer                         |
| MT1-F             | GCTGT CCTCTAACGCGTCACC<br>Mouse metallothionein 1 promoter, forward primer                |
| mU6-F             | CAGCACAAAAGGAAACTCACC<br>Mouse U6 promoter, forward primer                                |
| Myc               | GCATCAATGCAGAAGCTGATCTCA (BD Biosciences)<br>Myc tag, forward primer                      |
| Neo-F             | CGTTGGCTACCCGTGATATT<br>3' end of neomycin resistance gene, forward primer                |
| Neo-R             | GCCCAGTCATAGCCGAATAG<br>5' end of neomycin resistance gene, reverse primer                |
| NOS-F             | GCGTTCAAAGTCGCCTAAG<br>Nopaline synthase promoter, forward primer                         |
| OpiE2 Forward     | CGCAACGATCTGGTAAACAC (Invitrogen)<br>OpiE2 promoter, forward primer                       |

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| pACYC-F         | TGAAGTCAGCCCCATACGAT<br>p15A origin, forward primer   |
| pAd-CMV         | GCTAGAGATCTGGTACCGTC<br>For cloning sites after Sall in pAd-CMV vector                            |
| pBABE 3'        | ACCTTAAGTGACACACATTCC (Weinberg Lab)<br>SV40 enhancer, 3' of MCS in pBABE vectors, reverse primer |
|                 | CTTTATCCAGGCCCTCAC (Weinberg Lab)   |
| pBABE 5'        | Psi packaging signal, 5' of MCS in pBABE vectors, forward primer                                  |
| pBAD Forward    | ATGCCATAGCATTTTATCC (Invitrogen)<br>For vectors with E. coli araBAD promoter, forward primer      |
| pBAD Reverse    | GATTTAACCTGTATCAGG (Invitrogen)<br>For vectors with E. coli araBAD promoter, reverse primer       |
| pBluescriptKS   | TCGAGGTCGACGGTATC<br>For pBluescript vector   |
| pBluescriptSK   | TCTAGAACTAGTGGATC<br>For pBluescript vector   |
| pBMN 5'         | GCTTGGATAACGCCGC<br>MMLV sequence, for inserts in pBMN retroviral vector                          |
| pBRforBam       | CTTGGAGCCACTATCGAC<br>In pBR322 tet region, upstream of BamHI, forward primer                     |
| pBRforEco       | AATAGGCGTATCACGAGGC<br>In pBR322, upstream of EcoRI site, forward primer                          |
| pBRrevBam       | GGTGATGTCGGCGATAGG<br>In pBR322 tet region, downstream of BamHI, reverse primer                   |
| pCAG-F          | GCAACGTGCTGGTTATTGTG<br>Rabbit beta-globin intron, for pCAG plasmids, forward primer              |
| pCasper-F       | GGGTTTTATTAACCTACAT (Vosshall lab)<br>5' end of Drosophila mini-white gene, reverse primer        |
| pcDL-F          | GTTGCCTTACTTCTAGGCCT (Kinet lab)<br>5' of EcoRI site in pcDL vector, forward primer               |
| pENTR-F         | CTACAAACTCTCCTGTTAGTTAG<br>5' of attL1 in pENTR vector, forward primer                            |
| pGEX 3'         | CCGGGAGCTGCATGTGTCAGAGG<br>3' of MCS in pGEX vectors, reverse primer                              |
| pGEX 5'         | GGGCTGGCAAGCCACGTTGGTG<br>3' end of glutathione-S-transferase, forward primer                     |
| pGP704-R        | AACAAGCCAGGGATGTAACG<br>R6K gamma origin, 3' of MCS in pGP704 vector, reverse primer              |
| pHybLex Reverse | GAGTCACTTAAAATTGTATACAC (Invitrogen)<br>ADH terminator, reverse primer                            |
| pLTet-F         | ACTGAGCACATCAGCAGGAC<br>Lambda phage early leftward (pL) promoter, forward primer                 |
|                 | CCCTGAACCTCCTCGTCGACC (MSCV)  |

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| pLXSN 5'           | Murine stem cell virus, same as MSCV, forward primer   |
| pMRB101-F          | AAGATGCAGGCAGCTGAGTT<br>HCMV major immediate-early protein (IE), forward primer                    |
| pMT2-F             | TTGCCTTCTCTCCACAGGT<br>3' end of synthetic intron, forward primer                                  |
| pMX-S1811          | GACGGCATCGCAGCTTGGATACAC (Yamanaka lab)<br>MMLV sequence, 5' of MCS in pMXs vector, forward primer |
| Polyhedrin forward | AAATGATAACCATCTCGC (Invitrogen)<br>Polyhedrin promoter, forward primer                             |
|                    | GTCCAAGTTCCCTG (Invitrogen)  |
| Polyhedrin reverse | For baculovirus vector with polyhedrin promoter, reverse primer                                    |
| pQE promoter       | CCCGAAAAGTGCCACCTG (Qiagen)<br>5' of MCS in pQE vectors, forward primer                            |
| pREP Forward       | GCTCGATACAATAAACGCC (Invitrogen)<br>Rous sarcoma virus (RSV) promoter, forward primer              |
| pRS-marker         | CGGCATCAGAGCAGATTGTA<br>To sequence yeast selectable marker in pRS vectors                         |
| Pry1               | CTTAGCATGTCCGTGGGTTGAAT<br>PZ P-element, reverse primer  |
| pTrcHis Forward    | GAGGTATATATTAATGTATCG (Invitrogen)<br>5' of MCS in pTrcHis vector, forward primer                  |
| pTrcHis Reverse    | GATTTAATCTGTATCAGG (Invitrogen)<br>3' of MCS in pTrcHis vector, same as pBAD-R, reverse primer     |
| Puro-F             | GCAACCTCCCTCTACGAGC<br>3' end of puromycin resistance gene, forward primer                         |
| pZIP               | TCCTTCCAGCGAGGTTCTA<br>Murine leukemia virus (MuLV), reverse primer                                |
| RCAS-F             | ACATGGGTGGTGGTATAGCGCTTGC (Orsulic lab)<br>3' of Rous sarcoma virus (RSV) env gene, forward primer |
| RVprimer3          | CTAGCAAATAGGCTGTCCC (Promega)<br>5' of MCS in pGL3 vector, forward primer                          |
| SFFV-F             | ATTGATTGACTGCCCACCTC<br>Spleen focus forming virus 5' LTR, forward primer                          |
| SP6                | GATTAGGTGACACTATAG<br>SP6 promoter, forward primer   |
| SV40pA-R           | GAAATTGTGATGCTATTGC<br>SV40 polyA, reverse primer  |
| SV40pro-F          | TATTATGCAGAGGCCGAGG<br>SV40 promoter/origin, forward primer  |
| SV40-spliceR       | CACAAAGATCCGGACCAAAG<br>SV40 splice sequence, reverse primer                                       |
| T3                 | GCAATTAACCTCACTAAAGG<br>T3 promoter, forward primer  |

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| T7              | TAATACGACTCACTATAAGGG<br>T7 promoter, forward primer                      |
| T7 Terminal     | GCTAGTTATTGCTCAGCGG<br>T7 terminator, reverse primer                      |
| Tac promoter    | GAGCGGATAACAATTACACAGG (Waugh lab)<br>Tac promoter, forward primer        |
| TRC-F           | CAAGGCTGTTAGAGAGATAATTGGA (Root lab)<br>Human U6 promoter, forward primer |
| Ubx-F           | AACCTGTACTTGAAACAGGC<br>Drosophila Ultrabithorax gene, forward primer     |
| V5 Reverse      | ACCGAGGAGAGGGTTAGGGAT (Invitrogen)<br>V5 epitope, reverse primer          |
| WPRE-R          | CATAGCGTAAAAGGAGCAACA<br>5' end of WPRE, reverse primer                   |
| Xpress Forward  | TATGGCTAGCATGACTGGT (Invitrogen)<br>Xpress epitope, forward primer        |
| GLprimer1       | TGTATCTTATGGTACTGTAAGTG<br>for pGL vector                                 |
| GLprimer2       | CTTATGTTTGGCGTCTCCA<br>for pGL vector                                     |
| RVprimer3       | CTAGCAAAATAGGCTGTCCC<br>for pGL vector                                    |
| RVprimer4       | GACGATAGTCATGCCCGCG<br>for pGL vector                                     |
| Luc_U111        | AGGAACCAGGGCGTATCTCT<br>reverse primer for Luciferase gene                |
| CmF2            | TCCGGCCTTATTACACATTG<br>Chlorphenicol gene, forward primer                |
| FLAP            | CAGTGCAGGGAAAGAATAGTAGAC  |
| MalE            | GGTCGTCAGACTGTCGATGAAGCC  |
| Met25           | CTTCGTGTAATACAGGGT  |
| Neo_D545        | GCTTCCTCGTGCTTACGGT<br>Neomycin forward primer                            |
| DsRed1-F        | AGGACGGCTGCTTCATCTAC  |
| pFastBacForward | GGATTATTCATACCGTCCCA  |
| pFastBacReverse | CAAATGTGGTATGGCTGATT  |
| RepO-F          | GTGTAGGTCGTTCGCTCCA<br>house keeping, pBR322 origin                       |

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| RepO-R      | TCCTGTTACCAGTGGCTGCT<br>house keeping, pBR322 origin |
| pRLuc-MCS-F | GGGCGGTAGGCGTGTACGGTGG                               |
| pRLuc-MCS-R | CGTAGTAGTTGATGAAGCTGTCC                              |
| pSicoF      | GAGGCTTAATGTGCGATAAAAGA                              |
| pSicoR      | TTATGTAACGCGGAACTCCA                                 |
| MBP-R       | GGTCGGCAGTACCGTTACAC                                 |