# Genotypes of Bacterial Strains

| Genotypes | | | Genotypes | | |
|---|---|---|---|---|---|
| **Comp Cell** | **Notes** | **Genotype** | **Comp Cell** | **Notes** | **Genotype** |
| 96Pack Gold | b,c | Tet$^r$ Δ (*mcrA*)183 Δ (*mcrCB-hsdSMR-mrr)173 endA1 supE44 thi-1 recA1 gyrA96 relA1 lac* Hte [*F′ proAB lacI$^q$ZΔ M15 Tn10* (Tet$^r$) Amy Cam$^r$] | BL21-CodonPlus (DE3)-RP-X | b | *E. coli* B F$^-$ *ompT hsdS*($r_B^-$ $m_B^-$) *metA*::Tn5(kan$^r$) *dcm*+ Tet$^r$ *gal* λ (DE3) *endA* Hte [*argU proL* Cam$^r$] |
| ABLE C | a,b | *E. coli* C *lac*(LacZω) [Kan$^r$ McrA$^-$ McrCB$^-$ McrF$^-$ Mrr HsdR($r_K^-$ $m_K^+$)] [*F′ proAB lacI$^q$ZΔM15* Tn*10* (Tet$^r$)] | BL21-Gold | b | *E. coli* B F$^-$ *ompT hsdS*($r_B^-$ $m_B^-$) *dcm*+ Tet$^r$ *gal endA* Hte |
| ABLE K | a,b | *E. coli* C *lac(LacZω)* [Kan$^r$ McrA$^-$ McrCB$^-$ McrF$^-$ Mrr HsdR($r_K^-$ $m_K^+$)] [F′ *proAB lacI$^q$ZΔM15* Tn*10* (Tet$^r$)] | BL21-Gold (DE3) | b | *E. coli* B F$^-$ *ompT hsdS*($r_B^-$ $m_B^-$) *dcm*+ Tet$^r$ *gal* λ (DE3) *endA* Hte |
| AG1 | b | *recA1 endA1 gyrA96 thi-1 hsdR17*($r_K^-$ $m_K^+$) *supE44 relA1* | BL21-Gold (DE3) pLysS | b | *E. coli* B F$^-$ *ompT hsdS*($r_B^-$ $m_B^-$) *dcm*+ Tet$^r$ *gal* λ (DE3) *endA* Hte [*pLysS* Cam$^r$] |
| BB4 | | LE392.23 [F′ *lacI$^q$ZΔM15 proAB* Tn*10* (Tet$^r$)] | C600 | | e14$^-$(McrA$^-$) *supE44 thi-1 thr-1 leuB6 lacY1 tonA21* |
| BJ5183 | a | *endA*1 *sbcBC recBC galK met thi-1 bioT hsdR*(Str$^r$) | C600hfl | | e14$^-$(McrA$^-$) *supE44 thi-1 thr-1 leuB6 lacY1 tonA21 hflA150*::Tn*10* |
| BL21 | b | *E. coli* B F$^-$ *dcm ompT hsdS*($r_B^-$ $m_B^-$) *gal* | DP50 | | *tonA53 dapD8 lacY1 glnV44(supE44)* Δ*(gal-uvrB)47 tyrT58 (supF58) gyrA29* Δ*(thyA57) hsdS3*($r_K^-$ $m_K^-$) *mcrA* |
| BL21(DE3) | b | *E. coli* B F$^-$ *dcm ompT hsdS*($r_B^-$ $m_B^-$) *gal* λ(DE3) | ElectroTen-Blue | a, c | Δ*(mcrA)183 (mcrCB hsdSMR mrr)173 endA1 supE44 thi-1 recA1 gyrA96 relA1 lac* Kan$^r$ [F′*proAB lacI$^q$ZΔM15* Tn*10*(Tet$^r$) ] |
| BL21(DE3) pLysS | b | *E. coli* B F$^-$ *dcm ompT hsdS*($r_B^-$ $m_B^-$) *gal* λ(DE3) [pLysS Cam$^r$] | HB101 | | *supE44 ara14 galK2 lacY1* Δ*(gpt-proA)62 rpsL20* (Str$^r$) *xyl-5 mtl-1 recA13* Δ*(mcrC mr$^r$)* HsdS($r^-$ $m^-$) |
| BL21-CodonPlus-RIL | b | *E. coli* B F$^-$ *ompT hsdS*($r_B^-$ $m_B^-$) *dcm*+ Tet$^r$ *gal* λ *endA* Hte [*argU ileY leuW* Cam$^r$] | JM101 | b | *supE thi-1* Δ*(lac-proAB)* [F′ *traD36 proAB lacI$^q$ZΔM15*] |
| BL21-CodonPlus (DE3)-RIL | b | *E. coli* B F$^-$ *ompT* hsdS($r_B^-$ $m_B^-$) *dcm*+ Tet$^r$ *E. coli* gal λ (DE3) *endA* Hte [*argU ileY leuW* Cam$^r$] | JM109 | b | e14$^-$(McrA$^-$) *recA1 endA1 gyrA96 thi-1 hsdR17*($r_K^-$ $m_K^+$) *supE44 relA1* Δ*(lac-proAB)* [F′ *traD36 proAB lacI$^q$ZΔM15*] |
| BL21-CodonPlus (DE3)-RIPL | | *E. coli* B F$^-$ *ompT hsdS*($r_B^-$ $m_B^-$) *dcm*+ Tet$^r$ gal λ (DE3) *endA* Hte [*argU proL* Cam$^r$] [*argU ileY leuW* Strep/Spec$^r$] | JM110 | b | *rpsL* (Str$^r$) *thr leu thi-1 lacY galK galT ara tonA tsx dam dcm supE44* Δ*(lac-proAB)* F′ *traD36 proAB lacI$^q$ZΔM15*] |
| BL21-CodonPlus-RP | b | *E. coli* B F$^-$ *ompT hsdS*($r_B^-$ $m_B^-$) *dcm*+ Tet$^r$ gal λ *endA* Hte [*argU proL* Cam$^r$] | LE392 | b | e14$^-$(McrA$^-$) *hsdR514 supE44 supF58 lacY1* or Δ*(lacIZY)6 galK2 galT22 metB1 trpR55* |
| BL21-CodonPlus (DE3)-RP | | *E. coli* B F$^-$ *ompT hsdS*($r_B^-$ $m_B^-$) *dcm*+ Tet$^r$ *gal* λ (DE3) *endA* Hte [*argU proL* Cam$^r$] | NM514 | | *hsdR514*($r_K^-$ $m_K^-$) *argH galE galX lycB7 strA* (Hfl+) |
| BL21-CodonPlus (DE3)-RIL-X | b | *E. coli* B F$^-$ *ompT hsdS*($r_B^-$ $m_B^-$) *dcm*+ Tet$^r$ *gal* λ (DE3) *endA* Hte *metA*::Tn5(Kan$^r$) [*argU ileY leuW* Cam$^r$] | | | |

**LEGEND**

Genes carry a mutated allele unless listed as present on the F′ episome, which is wild-type.
Strains are λ- and F- unless otherwise designated.
Strains shown in red are available as bacterial glycerol stocks.

a. Available as electroporation-competent frozen bacteria.
b. Available as high-efficiency competent frozen bacteria.
c. An uncharacterized mutation enhances the α-complementation for more intense blue color on plates with X-gal and IPTG.
d. pMC9 is pBR322 with *lacI$^q$* inserted.
e. Su$^-$ indicates nonsuppressing.

## Genotypes of Bacterial Strains, continued

| Genotypes | | |
|---|---|---|
| **Comp Cell** | **Notes** | **Genotype** |
| NM522 | b | *supE thi-1* Δ(*lac-proAB*) Δ(*mcrB-hsdSM*)*5* ($r_K^-$ $m_K^-$) [F′ *proAB lacI*$^q$Z*ΔM15*] |
| NM554 | | *recA13 araD139* Δ(*ara-leu*)*7696* Δ(*lac*)*I7A galU galK hsdR rpsL* (Str$^r$) *mcrA mcrB* |
| P2392 | | LE392 (P2 lysogen) |
| SCS1 | b | *recA1 endA1 gyrA96 thi-1 hsdR17*($r_K^-$ $m_K^+$) *supE44 relA1* |
| SCS110 | b | *rpsL* (Str$^r$) *thr leu endA thi-1 lacY galK galT ara tonA tsx dam dcm supE44* Δ(*lac-proAB*) [F′ *traD36 proAB lacI*$^q$Z*ΔM15*] |
| SoloPack Gold | b,c | Tet$^r$Δ (*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 supE44 thi-1 recA1 gyrA96* relA1 *lac* Hte [F′ *proAB lacI*$^q$Z*ΔM15* Tn*10* (Tet$^r$) Amy Cam$^r$] |
| SOLR | e | e14$^-$(McrA$^-$) Δ(*mcrCB-hsdSMR-mrr*)*171 sbcC recB recJ uvrC umuC*::Tn5 (Kan$^r$) *lac gyrA96 relA1 thi-1 endA1* $\lambda^R$ [*F′ proAB lacI*$^q$Z*ΔM15*]$^c$ $Su^-$ |
| SURE | a,b,c | e14$^-$(McrA$^-$) Δ(*mcrCB-hsdSMR-mrr*)171 *endA1 supE44 thi-1 gyrA96 relA1 lac recB recJ sbcC umuC*::Tn5 (Kan$^r$) *uvrC* [F′ *proAB lacI*$^q$Z*ΔM15* Tn*10* (Tet$^r$)] |
| SURE 2 | b,c | e14-(McrA-) Δ(*mcrCB-hsdSMR-mrr*)*171 endA1 supE44 thi-1 gyrA96 relA1 lac recB recJ sbcC umuC*::Tn5 (Kan$^r$) *uvrC* [F′ *proAB lacI*$^q$Z*ΔM15* Tn*10* (Tet$^r$) Amy Cam$^r$] |
| TG1 | a | *supE thi-1* Δ(*lac-proAB*) Δ(*mcrB-hsdSM*)*5* ($r_K^-$ $m_K^-$) [F′ *traD36 proAB lacI*$^q$Z*ΔM15*] |
| TKB1 | b | *E. coli* B $F^-$ *dcm ompT hsdS*($r_B^-$ $m_B^-$) *gal* λ(DE3) [pTK Tet$^r$] |
| TKX1 | b | Δ(*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 supE44 thi-1 recA1 gyrA96 relA1 lac* [F′ *proAB lacI*$^q$Z*ΔM15* Tn*5* (Kan$^r$)] [pTK Tet$^r$] |
| XL1-Blue | a,b,c | *recA1 endA1 gyrA96 thi-1 hsdR17 supE44 relA1 lac* [F′ *proAB lacI*$^q$Z*ΔM15* Tn*10* (Tet$^r$)] |
| XL1-Blue MR | b,c | Δ(*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 supE44 thi-1 recA1 gyrA96 relA1 lac* |
| XL1-Blue MRA | c | Δ(*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 supE44 thi-1 gyrA96 relA1 lac* |
| XL1-Blue MRA (P2) | c | XL1-Blue MRA (P2 lysogen) |

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| XL1-Blue MRF′ | a,b,c | Δ(*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 supE44 thi-1 recA1 gyrA96 relA1 lac* [F′ *proAB lacI*$^q$Z*ΔM15* Tn*10* (Tet$^r$)] |
| XL1-Blue MRF′ Kan | b,c | Δ(*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 supE44 thi-1 recA1 gyrA96 relA1 lac* [F′ *proAB lacI*$^q$Z*ΔM15* Tn*5* (Kan$^r$)] |
| XL1-Red | | *endA1 gyrA96 thi-1 hsdR17 supE44 relA1 lac mutD5 mutS mutT* Tn*10* (Tet$^r$) |
| XL2-Blue | b,c | *recA1 endA1 gyrA96 thi-1 hsdR17 supE44 relA1 lac* [F′ *proAB lacI*$^q$Z*ΔM15* Tn*10* (Tet$^r$) Amy Cam$^r$] |
| XL2-Blue MRF′ | b,c | Δ(*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 supE44 thi-1 recA1 gyrA96 relA1 lac* [F′ *proAB lacI*$^q$Z*ΔM15 Tn*10 (Tet$^r$) Amy Cam$^r$] |
| XL10-Gold | b,c | Tet$^r$Δ (*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 supE44 thi-1 recA1 gyrA96 relA1 lac Hte* [F′ *proAB lacI*$^q$Z*ΔM15* Tn*10* (Tet$^r$) Amy Cam$^r$] |
| XL10-Gold Kan$^r$ | b,c | Tet$^r$Δ (*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 supE44 thi-1 recA1 gyrA96 relA1 lac Hte* [F′ *proAB lacI*$^q$Z*ΔM15* Tn*10* (Tet$^r$) Tn*5* (Kan$^r$) Amy] |
| XLmut S Kan$^s$ | | Δ(*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 supE44 thi-1 gyrA96 relA1 lac mutS*::Tn*10* (Tet$^r$) [F′ *proAB lacI*$^q$Z*ΔM15* Tn*5* ] |
| XLmut S Kan$^r$ | | Δ(*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 supE44 thi-1 gyrA96 relA1 lac mutS*::Tn*10* (Tet$^r$) [F′ *proAB lacI*$^q$Z*ΔM15* Tn*5* (Kan$^r$)] |
| XLOLR | c,e | Δ(*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 thi-1 recA1 gyrA96 relA1 lac* [F′ *proAB lacI*$^q$Z*ΔM15* Tn*10* (Tet$^r$)] $Su^-$ $\lambda^r$ |
| XPORT | | Δ(*mcrA*)*183* Δ(*mcrCB-hsdSMR-mrr*)*173 endA1 supE44 thi-1 recA1 gyrA96 relA1 lac* [F′ *proAB lacI*$^q$Z*ΔM15*] |
| Y1088 | d | e14$^-$(McrA$^-$) Δ(*lac*)*U169 supE supF hsdR metB trpR tonA21 proC*::Tn*5* (Kan$^r$) [pMC9 Amp$^r$ Tet$^r$] |
| Y1089 | d | Δ(*lac*)*U169* Δ(*lon*) *araD139 strA hflA150*::Tn*10* (Tet$^r$) [pMC9 Amp$^r$ Tet$^r$] |
| Y1089r- | | Y1089 *mcrB* |
| Y1090 | d | Δ(*lac*)*U169* Δ(*lon*) *araD139 strA supF mcrA trpC22*::Tn*10* (Tet$^r$) [pMC9 Amp$^r$ Tet$^r$] |
| Y1090r- | | *Y1090 mcrB hsdR* |

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