Wild Strain (w303)

MATa ura3-52 trp1Δ2 leu2-3_112 his3-11 can1-100

Delete HMLα with PCR product of KanMX amplified from pXXX using primers XXX & XXX

MATa ura3-52 trp1Δ2 leu2-3_112 his3-11 HMLα::KanMX can1-100

Delete ADE4 with PCR product of CaURA5 amplified from pXXX using primers XXX & XXX

MATa ura3-52 trp1Δ2 leu2-3_112 his3-11 ADE4:: CaURA5 HMLα::KanMX can1-100

Delete LYS2 with PCR product of LEU2 amplified from genomic DNA using primers XXX & XXX

Progenitor Strain

MATa ura3-52 trp1Δ2 leu2-3_112 his3-11 LYS2:: LEU2 ADE4:: CaURA5 HMLα::KanMX can1-100

Strain requires histidine, lyscine, trptophan and adenine for growth.

Restore ADE4 with PCR product of ADE4(FBR) amplified from genomic DNA using primers XXX & XXX

Replace HIS1 with PCR product of HIS1(FBR) & HIS3 amplified from pXXX using primers XXX & XXX

Replace TRP2 with PCR product of TRP2(FBR) & TRP1 amplified from pXXX using primers XXX & XXX

Replace LYS21 with PCR product of LYS21(FBR) & LYS2 amplified from pXXX using primers XXX & XXX

Adenine Strain

MATa ura3-52 trp1Δ2 leu2-3_112 his3-11 LYS2:: LEU2 ADE4(FBR) HMLα::KanMX can1-100

Strain requires histidine, lyscine and trptophan for growth.
Strain produces adenine for cross-feeding.

Trptophan Strain

MATa ura3-52 trp1Δ2 leu2-3_112 his3-11 LYS2:: LEU2 ADE4::CaURA5 TRP2::TRP2(FBR)_TRP1 HMLα::KanMX can1-100

Strain requires histidine, lyscine and adenine for growth.
Strain produces trptophan for cross-feeding.

Histidine Strain

MATa ura3-52 trp1Δ2 leu2-3_112 his3-11 LYS2:: LEU2 ADE4::CaURA5 HIS1::HIS1(FBR)_HIS3 HMLα::KanMX can1-100

Strain requires adenine, lyscine and trptophan for growth.
Strain produces histidine for cross-feeding.

Lyscine Strain

MATa ura3-52 trp1Δ2 leu2-3_112 his3-11 LYS2:: LEU2 ADE4::CaURA5 LYS21::LYS21(FBR)_LYS2 HMLα::KanMX can1-100

Strain requires histidine, adenine and trptophan for growth.
Strain produces lysinefor cross-feeding.