Figure 1

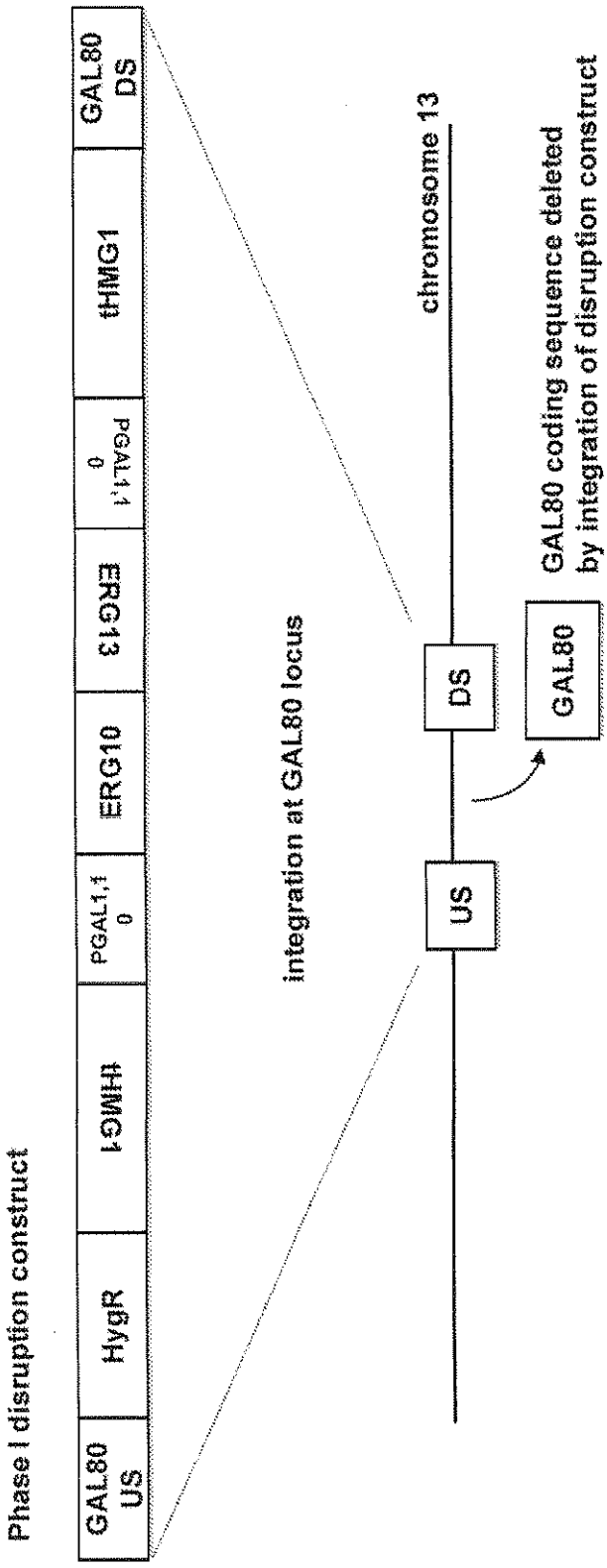

Phase I disruption construct
GAL80 US
HygR
tHMG1
PGAL1,1 0
ERG10
ERG13
PGAL1,1 0
tHMG1
GAL80 DS
integration at GAL80 locus
chromosome 13
US
DS
GAL80
GAL80 coding sequence deleted by integration of disruption construct

Figure 2

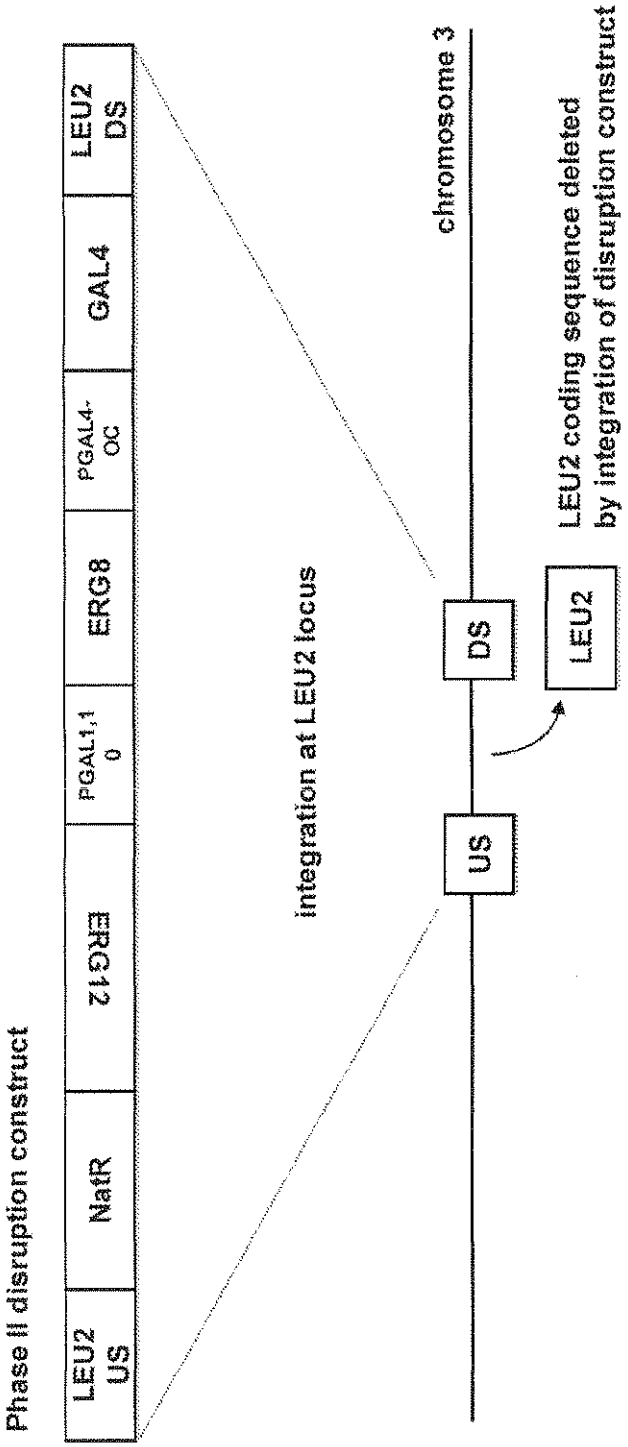

Phase II disruption construct
LEU2 US
NatR
ERG12
PGAL1,10
ERG8
PGAL4-OC
GAL4
LEU2 DS
integration at LEU2 locus
chromosome 3
US
DS
LEU2
LEU2 coding sequence deleted by integration of disruption construct

Figure 3

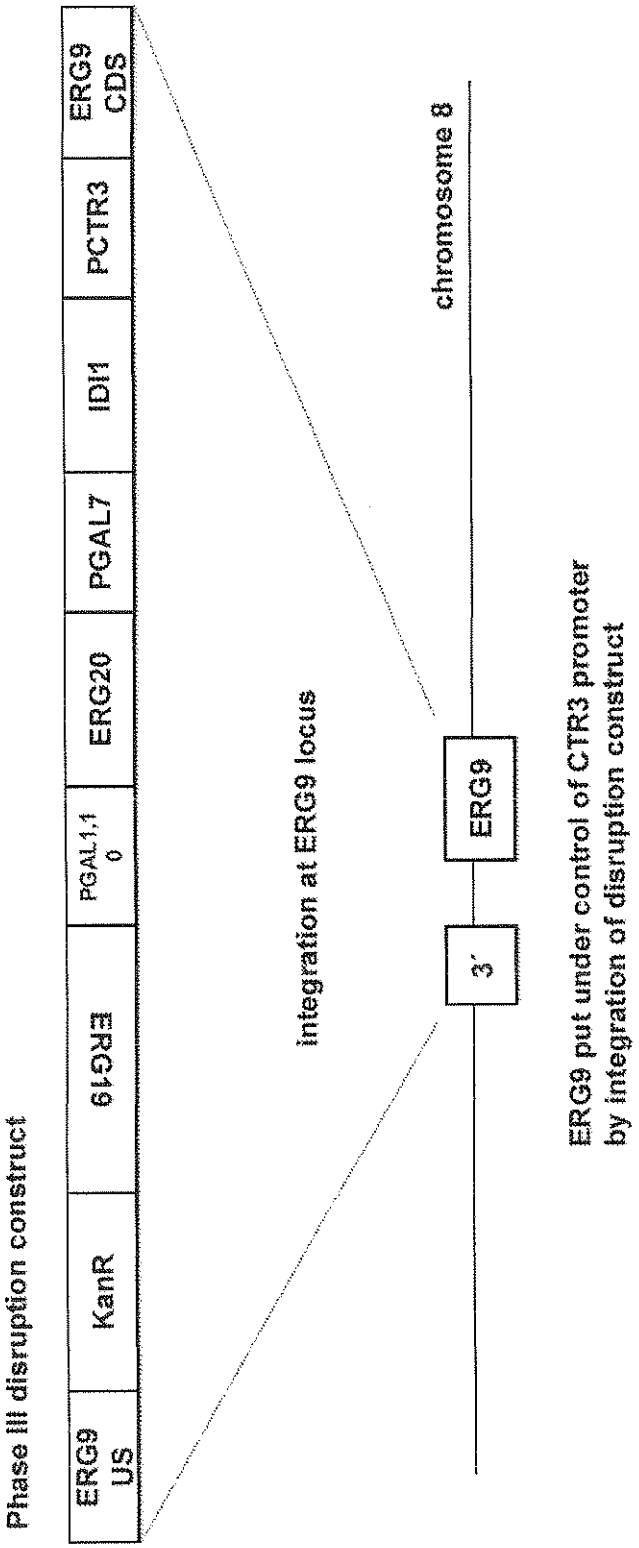

Phase III disruption construct
ERG9 US
KanR
ERG19
PGAL1,1 0
ERG20
PGAL7
IDI1
PCTR3
ERG9 CDS
integration at ERG9 locus
chromosome 8
3'
ERG9
ERG9 put under control of CTR3 promoter
by integration of disruption construct

Figure 4

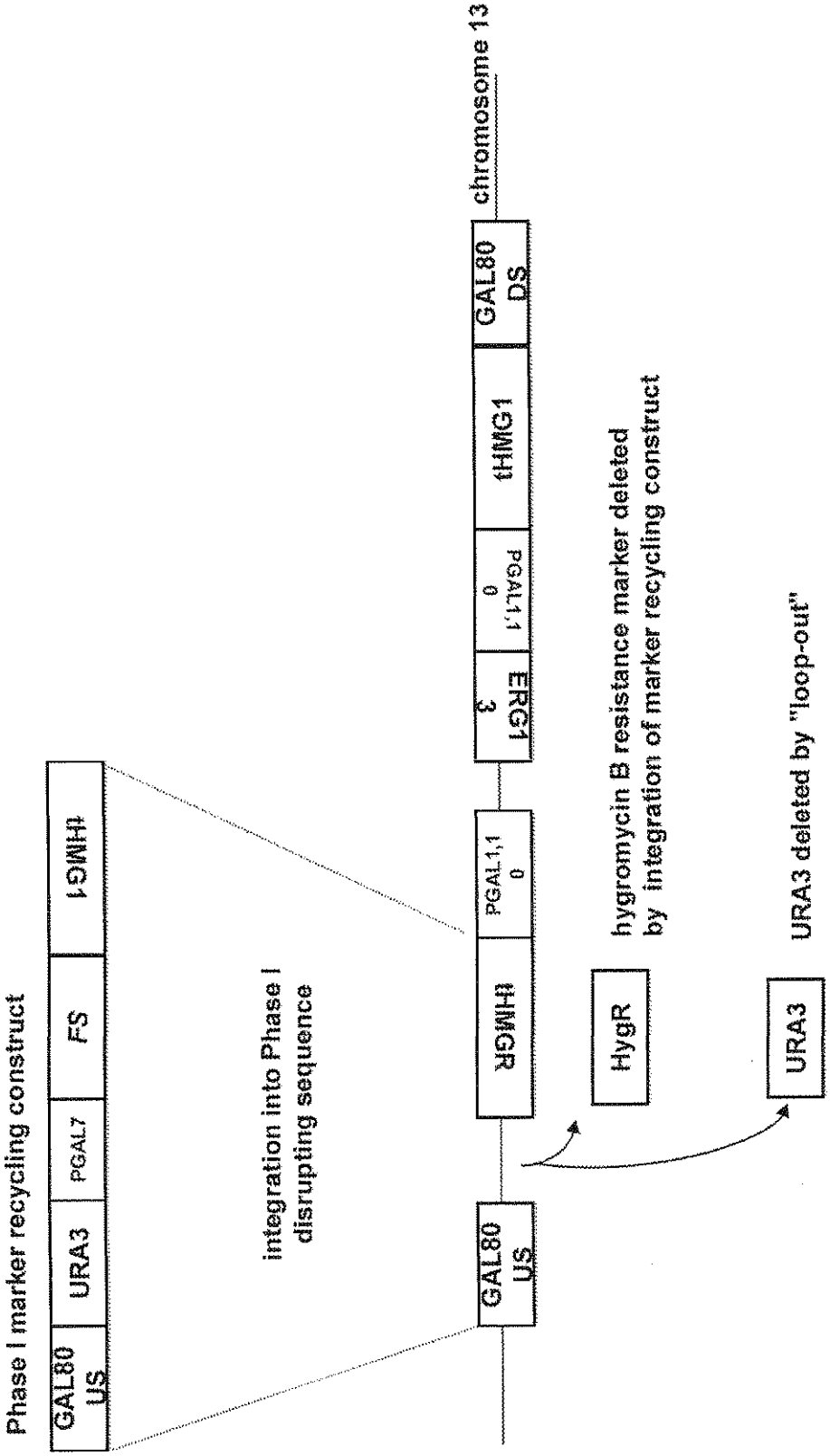

Phase I marker recycling construct
GAL80 US
URA3
PGAL7
FS
tHMG1
integration into Phase I disrupting sequence
GAL80 US
tHMGR
PGAL1,10
ERG1
3
PGAL1,10
tHMG1
GAL80 DS
chromosome 13
HygR
hygromycin B resistance marker deleted by integration of marker recycling construct
URA3
URA3 deleted by "loop-out"

Figure 5

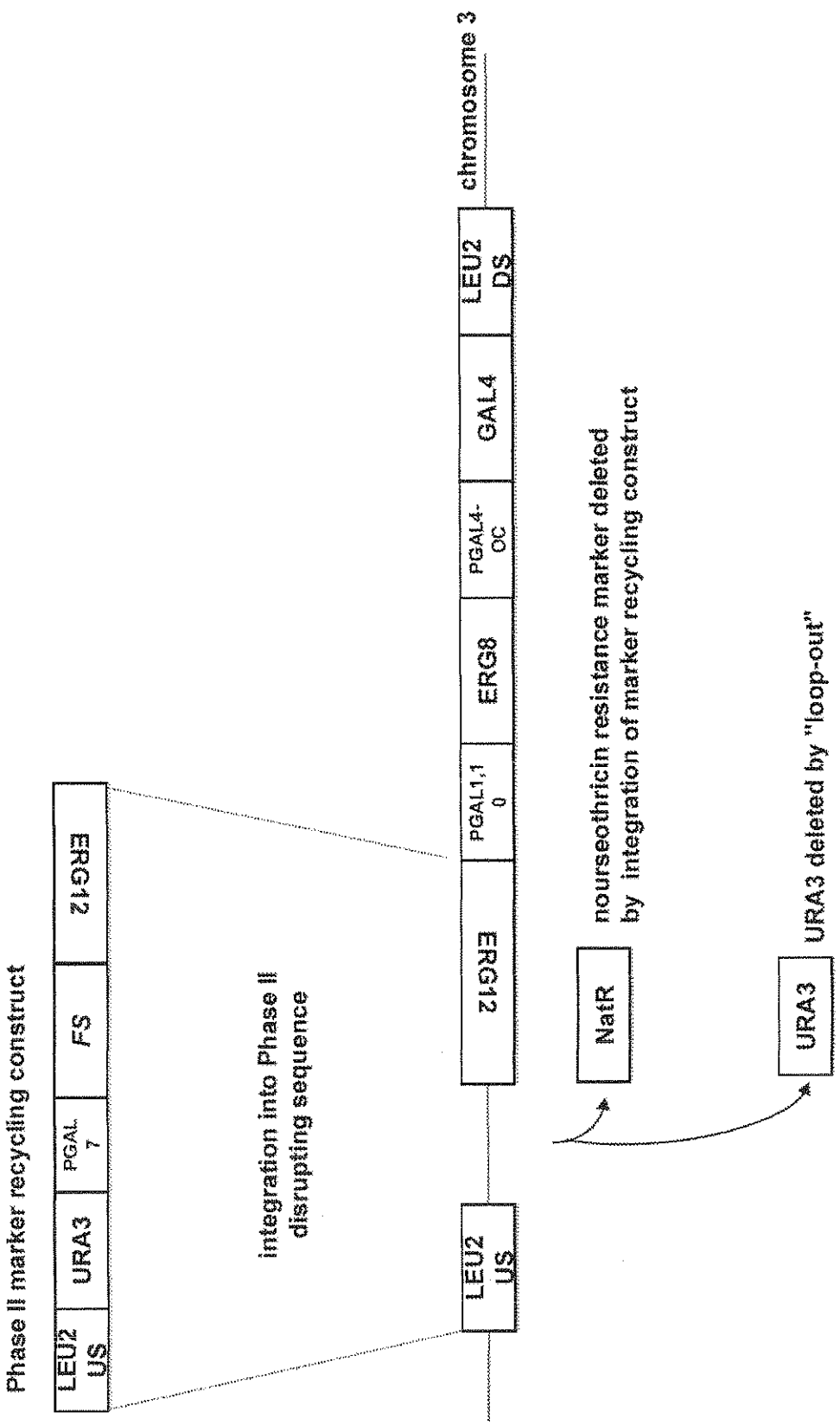

Phase II marker recycling construct
LEU2 US
URA3
PGAL 7
FS
ERG12
integration into Phase II disrupting sequence
LEU2 US
ERG12
PGAL1,10
ERG8
PGAL4-OC
GAL4
LEU2 DS
chromosome 3
NatR
nourseothricin resistance marker deleted by integration of marker recycling construct
URA3
URA3 deleted by "loop-out"

Figure 6

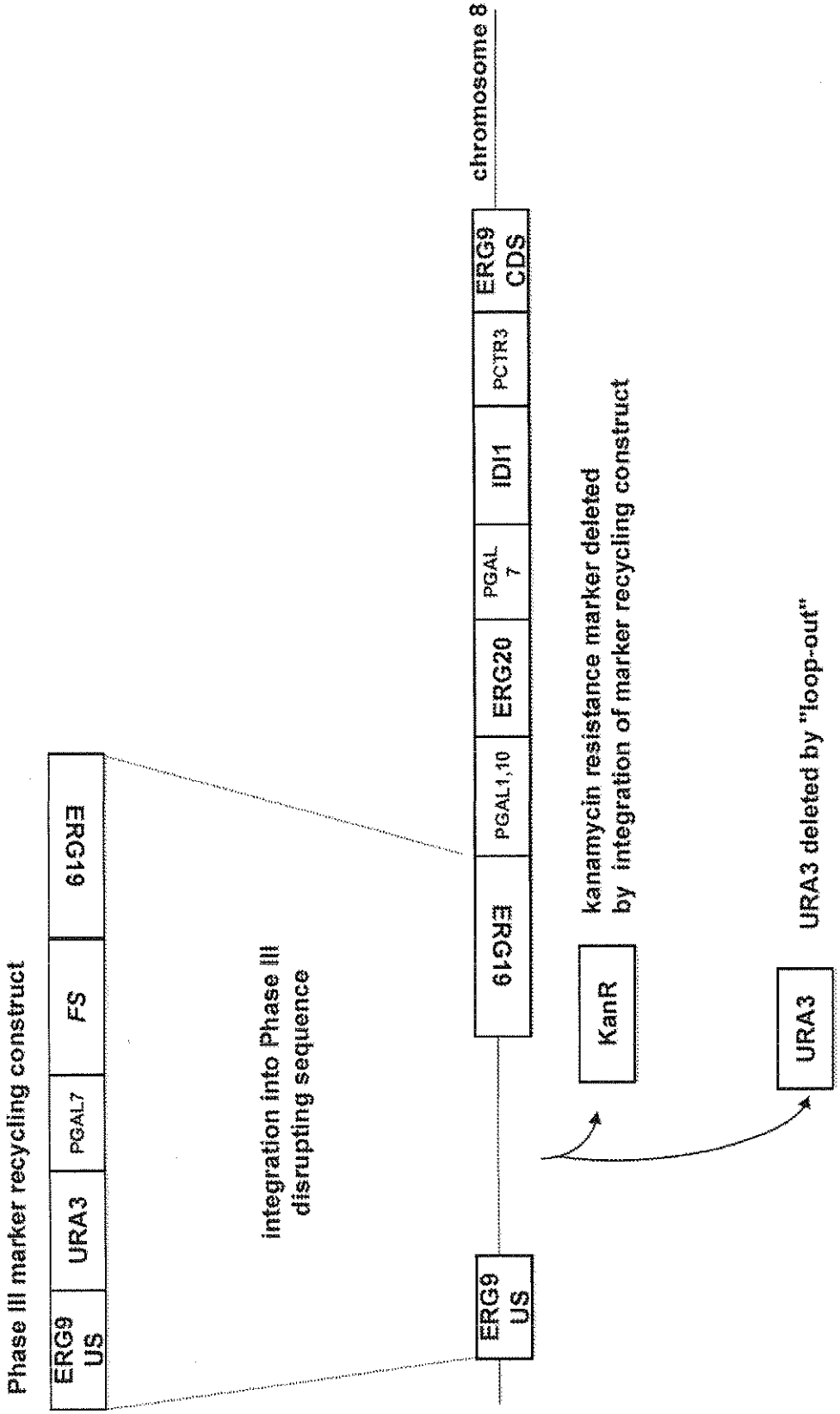

Phase III marker recycling construct
ERG9 US
URA3
PGAL7
FS
ERG19
integration into Phase III disrupting sequence
chromosome 8
ERG19
PGAL1,10
ERG20
PGAL 7
IDI1
PCTR3
ERG9 CDS
ERG9 US
KanR
kanamycin resistance marker deleted by integration of marker recycling construct
URA3
URA3 deleted by "loop-out"

Figure 7

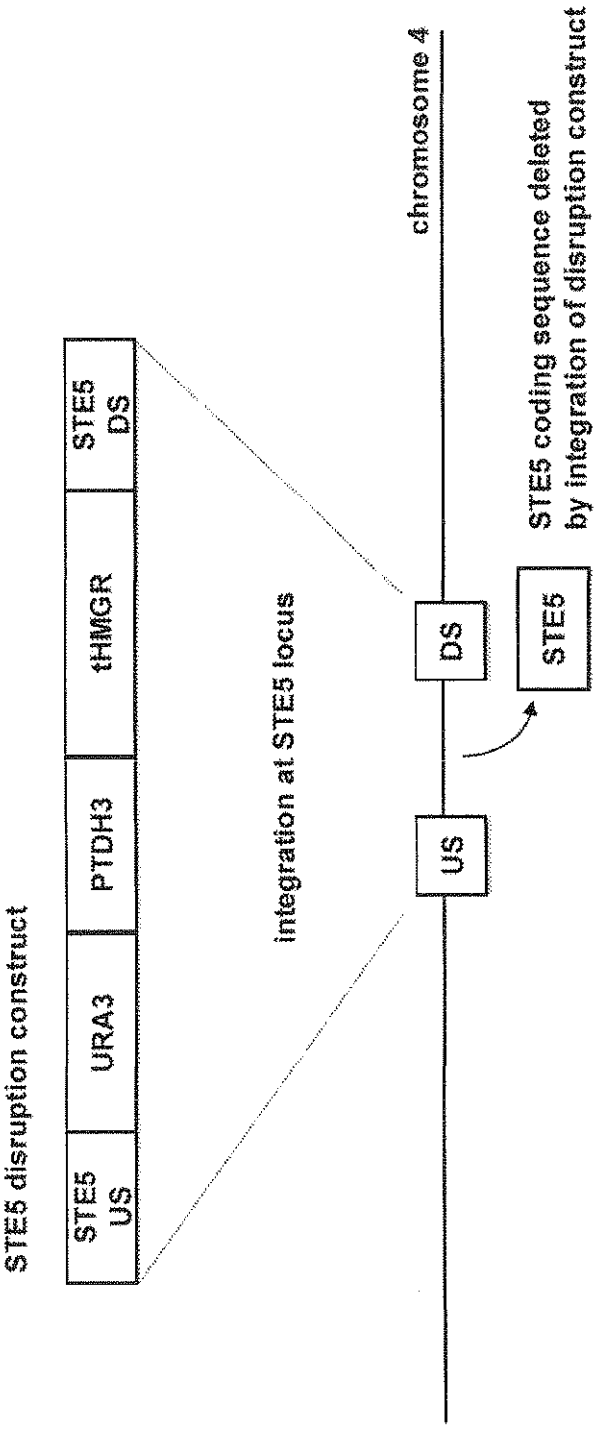

STE5 disruption construct
STE5 US
URA3
PTDH3
tHMGR
STE5 DS
integration at STE5 locus
chromosome 4
US
DS
STE5
STE5 coding sequence deleted
by integration of disruption construct

Figure 8

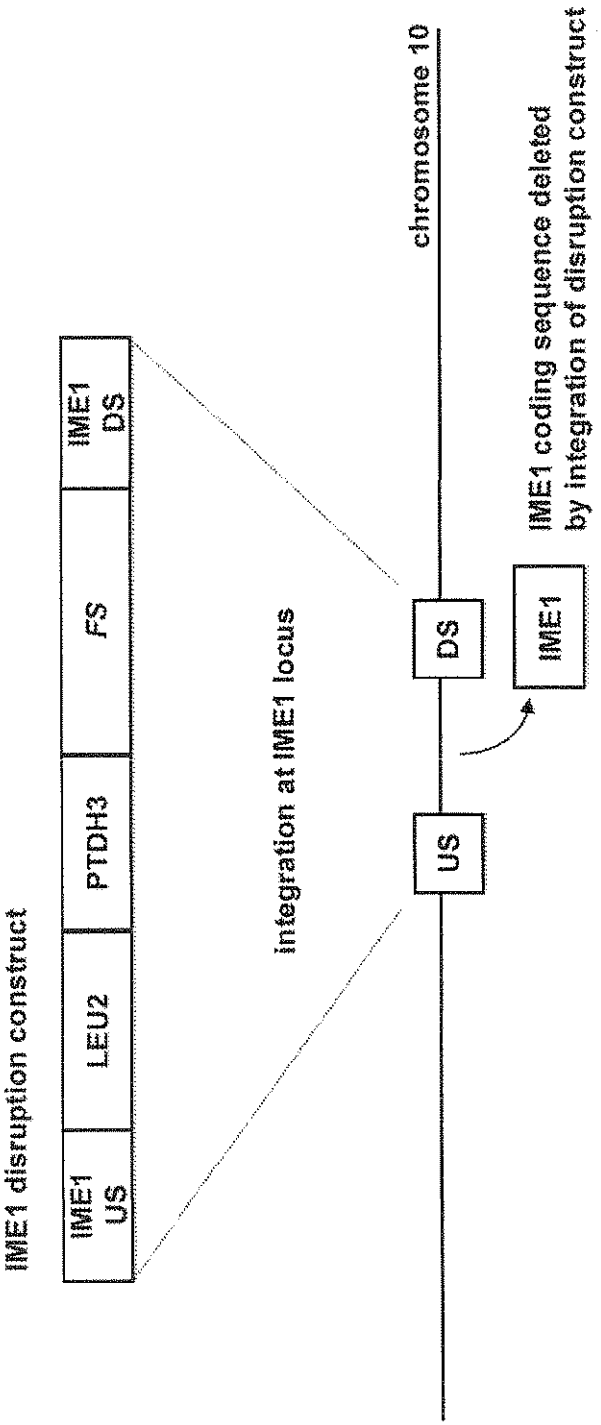

IME1 disruption construct
IME1 US
LEU2
PTDH3
FS
IME1 DS
integration at IME1 locus
chromosome 10
US
DS
IME1
IME1 coding sequence deleted
by integration of disruption construct

Figure 9

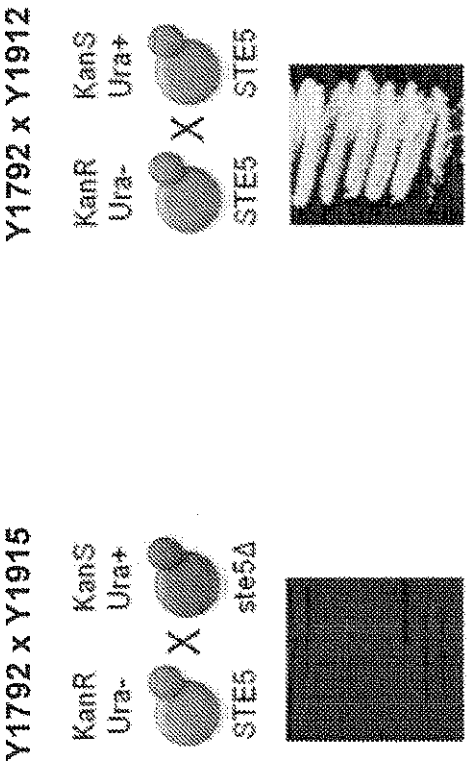

Y1792 x Y1912
KanR
Ura-
KanS
Ura+
STE5
X
STE5
STE5
Y1792 x Y1915
KanR
Ura-
KanS
Ura+
STE5
X
ste5Δ

Figure 10

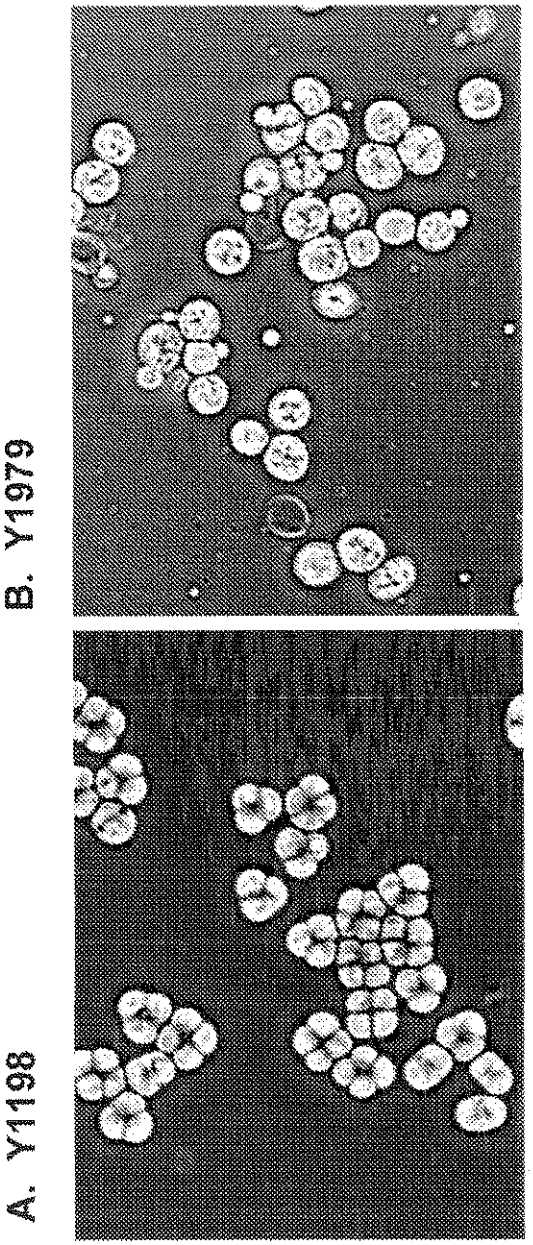
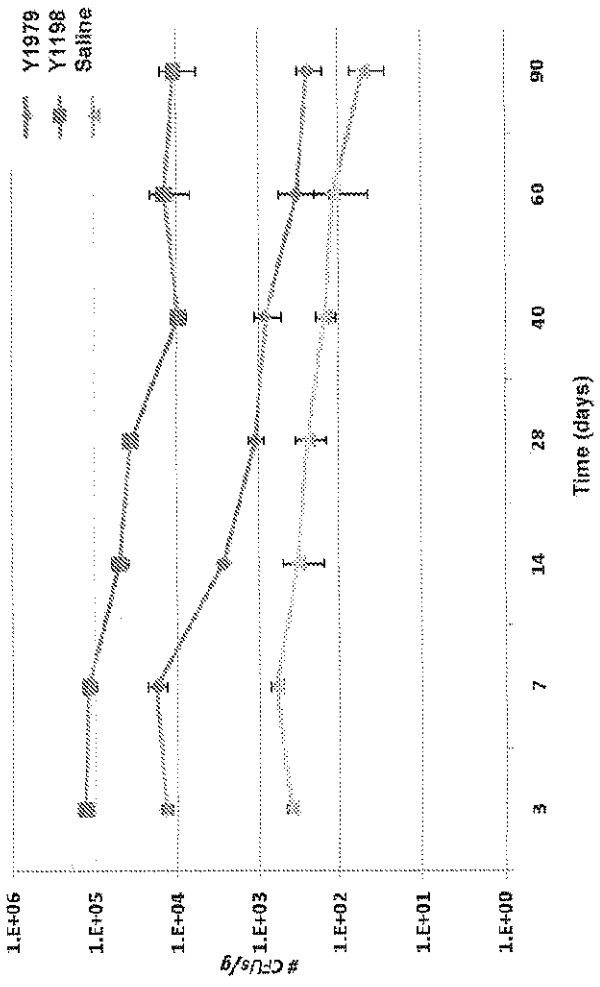


Figure 11


Y1979
Y1198
Saline
1.E+06
1.E+05
1.E+04
1.E+03
1.E+02
1.E+01
1.E+00
CFUs/g
3
7
14
28
40
60
90
Time (days)