```
S. cerevisiae ADE2  MDSRTVGILGGGQLGRMIVEAANRLNIKTVILDAENSPAKQISNSNDHVN  50
P. pastoris ADE2    MDSQVIGILGGGQLGRMIVEAASRLNIKTVILDDGFSPAKHINAAQDHID  50

S. cerevisiae ADE2  GSFSNPLDIEKLAEKCDVLTIEIEHVDVPTLKNLQVKHPKLKIYPSPETI  100
P. pastoris ADE2    GSFKDEEAIAKLAAKCDVLTVEIEHVNTDALKRVQDRTG-IKIYPLPETI  99

S. cerevisiae ADE2  RLIQDKYIQKEHLIKNGIAVTQSVPVEQASETSLLNVGRDLGFPFVLKSR  150
P. pastoris ADE2    RLIKDKYLQKEHLIKHNISVTKSQGIE-SNEKALLLFGEENGFPYLLKSR  148

S. cerevisiae ADE2  TLAYDGRGNFVVKNKEMIPEALEVLKDRPLYAEKWAPFTKELAVMIVRSV  200
P. pastoris ADE2    TMAYDGRGNFVVESKEDISKALEFLKDRPLYAEKFAPFVKELAVMVVRSL  198

S. cerevisiae ADE2  NGLVFSYPIVETIHKDNICDLCYAPARVPDSVQLKAKLLAENAIKSFPGC  250
P. pastoris ADE2    EGEVFSYPTVETVHKDNICHIVYAPARVNDTIQKAQILAENTVKTFPGA  248

S. cerevisiae ADE2  GIFGVEMFYLETGELLINEIAPRPHNSGHYTIDACVTSQFEAHLRSILDL  300
P. pastoris ADE2    GIFGVEMFLLSDGELLVNEIAPRPHNSGHYTIDACVTSQFEAHVRAITGL  298

S. cerevisiae ADE2  PMPKNFTSFSTITNAIMLNVLGDKHTKDKELETCERALATPGSSVYLYG  350
P. pastoris ADE2    PMPLDFTKLSTSNTNAIMLNVLGAEKSHG-ELEFCRRALETPGASVYLYG  347

S. cerevisiae ADE2  KESRPNRKVGHINIIASSMAECEQRLNYITGRTDIPIKISVAQKLDLEAM  400
P. pastoris ADE2    KTTRLARKMGHINIIGSSMLEAEQKLEYITLEESTHLPSSTVS-----AD  391

S. cerevisiae ADE2  VKPLVGIIMGSDSDLPVMSAACAVLKDFGVPFEVTIVSAHRTPHRMSAYA  450
P. pastoris ADE2    TKPLVGVIMGSDSDLPVISKGCDILKQFGVPFEVTIVSAHRTPQRMTRYA  441

S. cerevisiae ADE2  ISASKRGIKTIIAGAGGAAHLPGMVAAMTPLPVIGVPVKGSCLDGVDSLH  500
P. pastoris ADE2    FEAASRGIKAIIAGAGGAAHLPGMVAAMTPLPVIGVPVKGSTLDGVDSLH  491

S. cerevisiae ADE2  SIVQMPRGVPVATVAINNSTNAALLAVRLLGAYDSSYTTKMEQFLLKQEE  550
P. pastoris ADE2    SIVQMPRGVPVATVAINNATNAALLAIRILGTIDHKWQKEMSKYMNAMET  541

S. cerevisiae ADE2  EVLVKAQKLETVGYEAYLENK  571
P. pastoris ADE2    EVLGKASNLESEGYESYLKNRL  563
```

FIG. 1

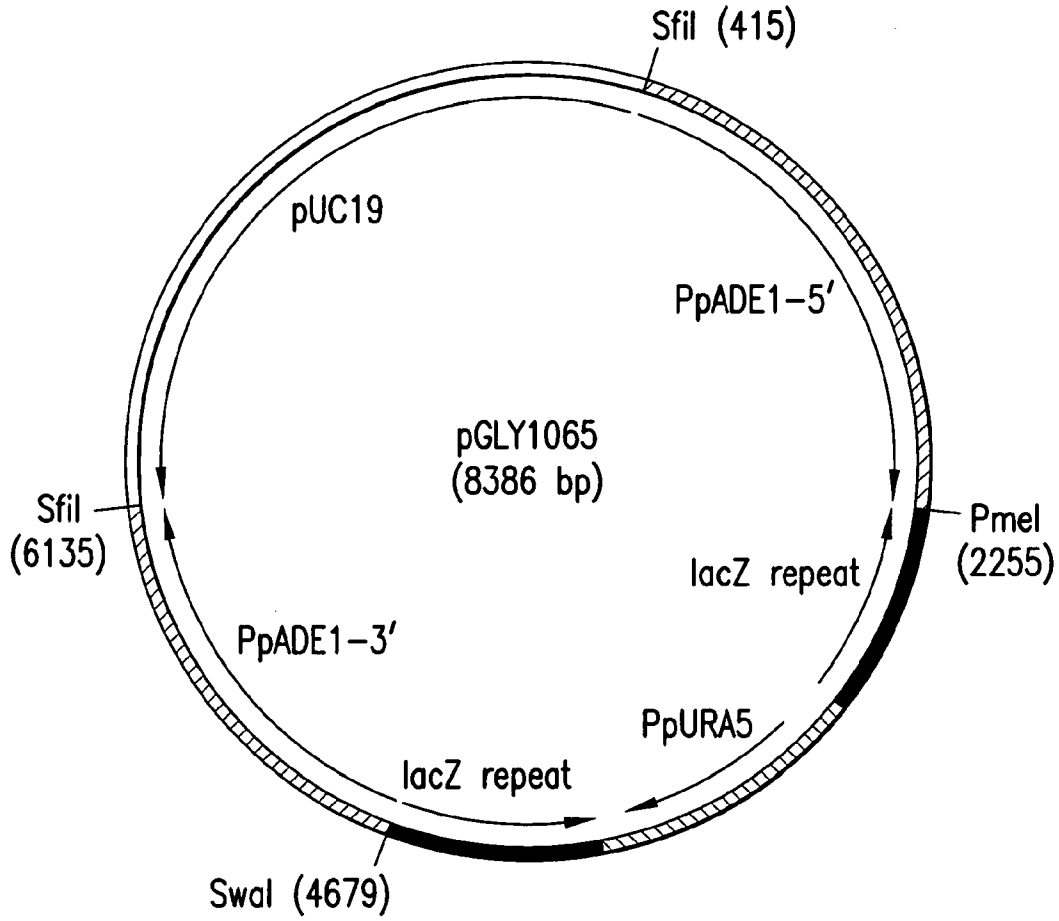

SfiI (415)
pUC19
PpADE1-5′
pGLY1065
(8386 bp)
SfiI
(6135)
PmeI
(2255)
lacZ repeat
PpADE1-3′
PpURA5
lacZ repeat
SwaI (4679)

FIG.2A

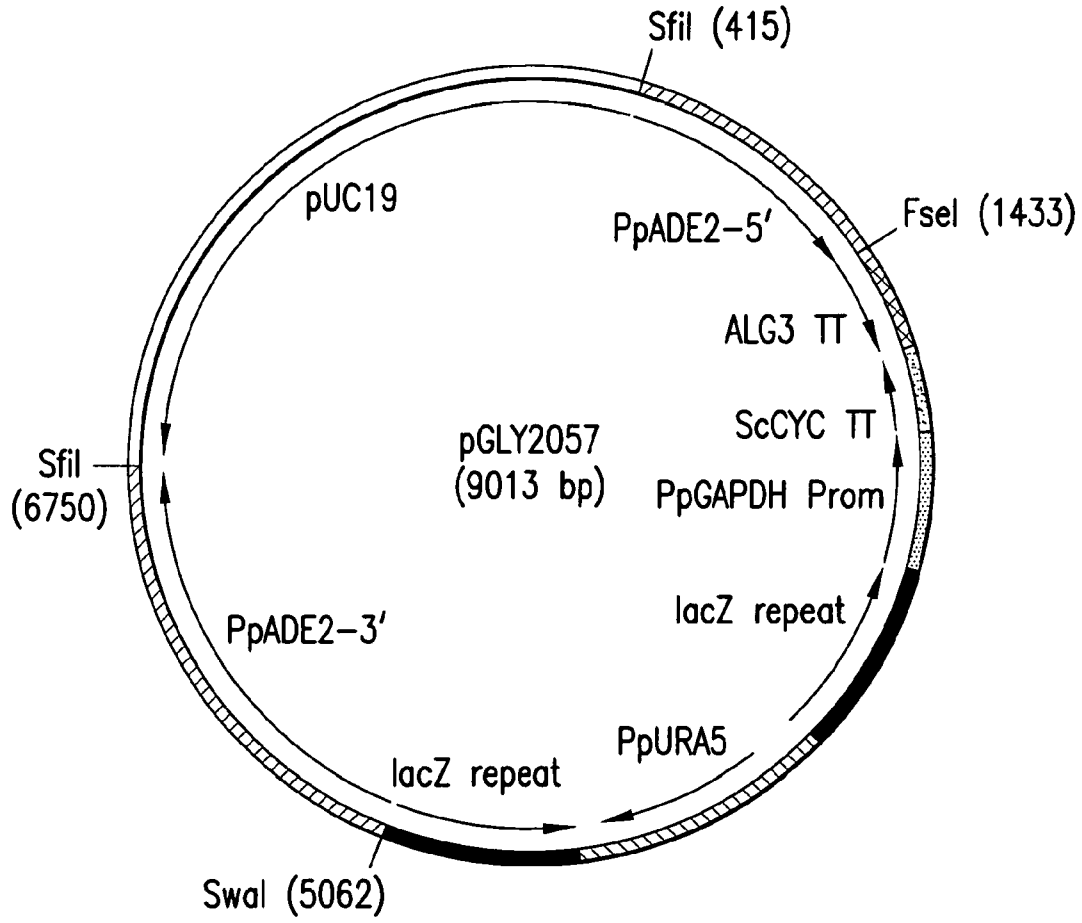

SfiI (415)
pUC19
PpADE2-5'
FseI (1433)
ALG3 TT
ScCYC TT
pGLY2057
(9013 bp)
PpGAPDH Prom
SfiI
(6750)
lacZ repeat
PpADE2-3'
PpURA5
lacZ repeat
SwaI (5062)

FIG.2B

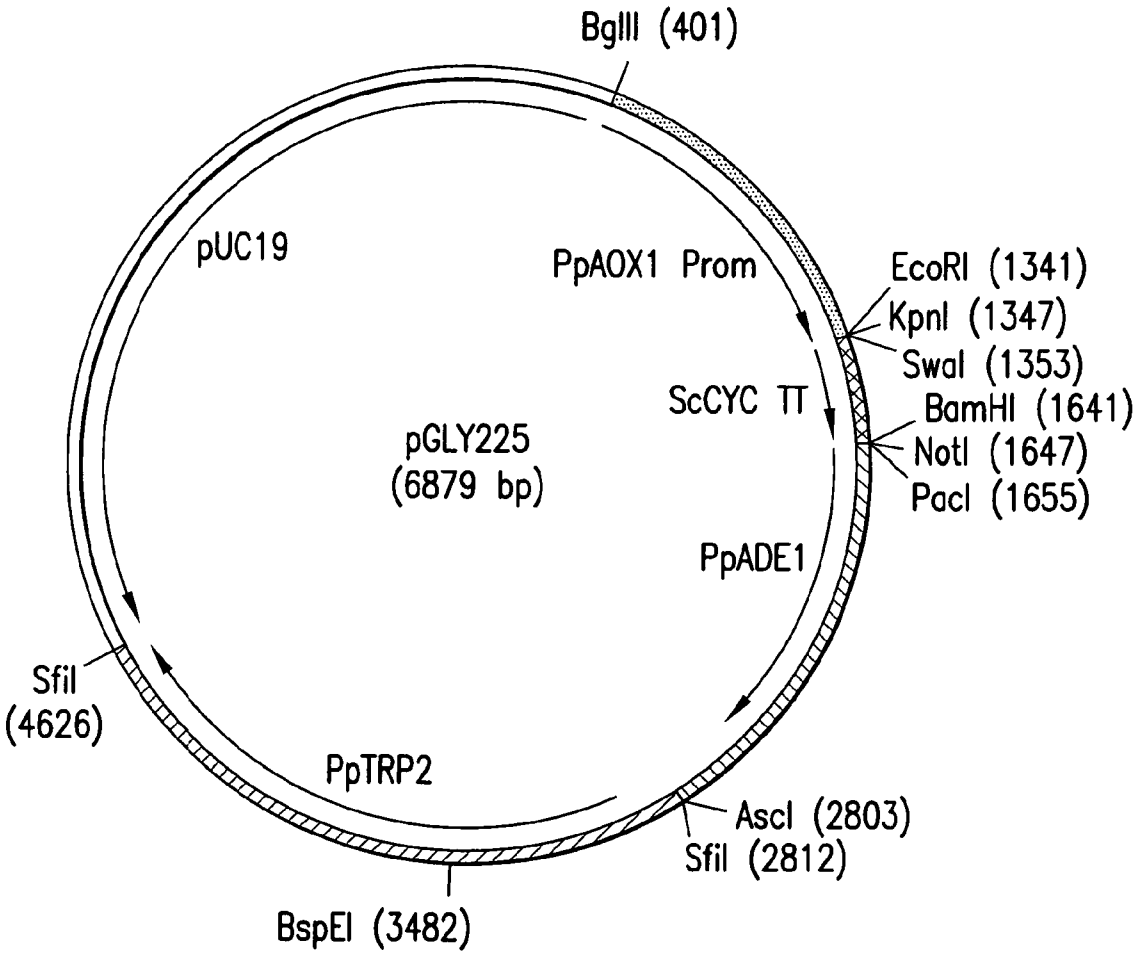

BglII (401)
pUC19
PpAOX1 Prom
EcoRI (1341)
KpnI (1347)
SwaI (1353)
ScCYC TT
BamHI (1641)
NotI (1647)
PacI (1655)
pGLY225
(6879 bp)
PpADE1
SfiI
(4626)
PpTRP2
AscI (2803)
SfiI (2812)
BspEI (3482)

FIG.2C

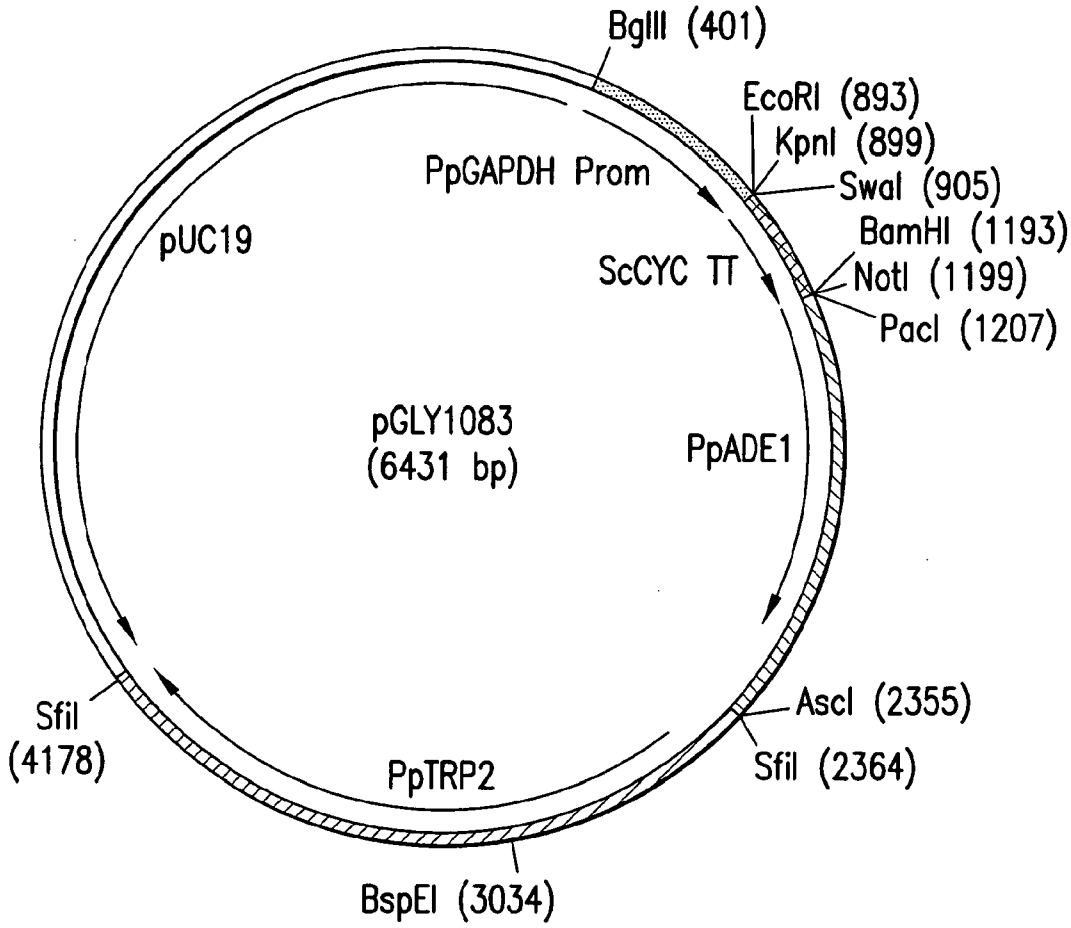

BglII (401)
EcoRI (893)
KpnI (899)
SwaI (905)
BamHI (1193)
NotI (1199)
PacI (1207)
PpGAPDH Prom
ScCYC TT
pUC19
pGLY1083
(6431 bp)
PpADE1
AscI (2355)
SfiI (2364)
PpTRP2
SfiI
(4178)
BspEI (3034)

FIG.2D

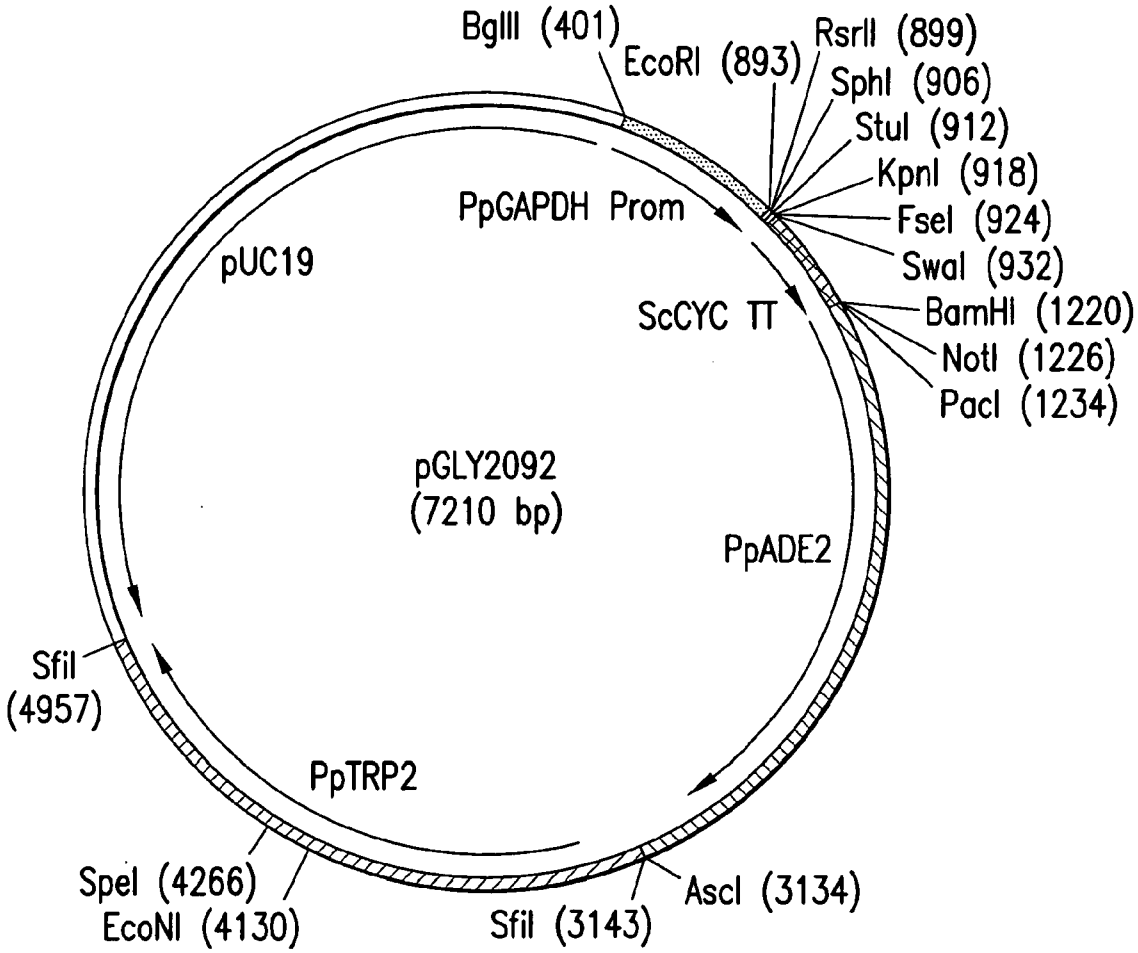

BglII (401)
EcoRI (893)
RsrII (899)
SphI (906)
StuI (912)
KpnI (918)
FseI (924)
SwaI (932)
BamHI (1220)
NotI (1226)
PacI (1234)
PpGAPDH Prom
pUC19
ScCYC TT
pGLY2092
(7210 bp)
PpADE2
SfiI
(4957)
PpTRP2
SpeI (4266)
EcoNI (4130)
SfiI (3143)
AscI (3134)

FIG.2E

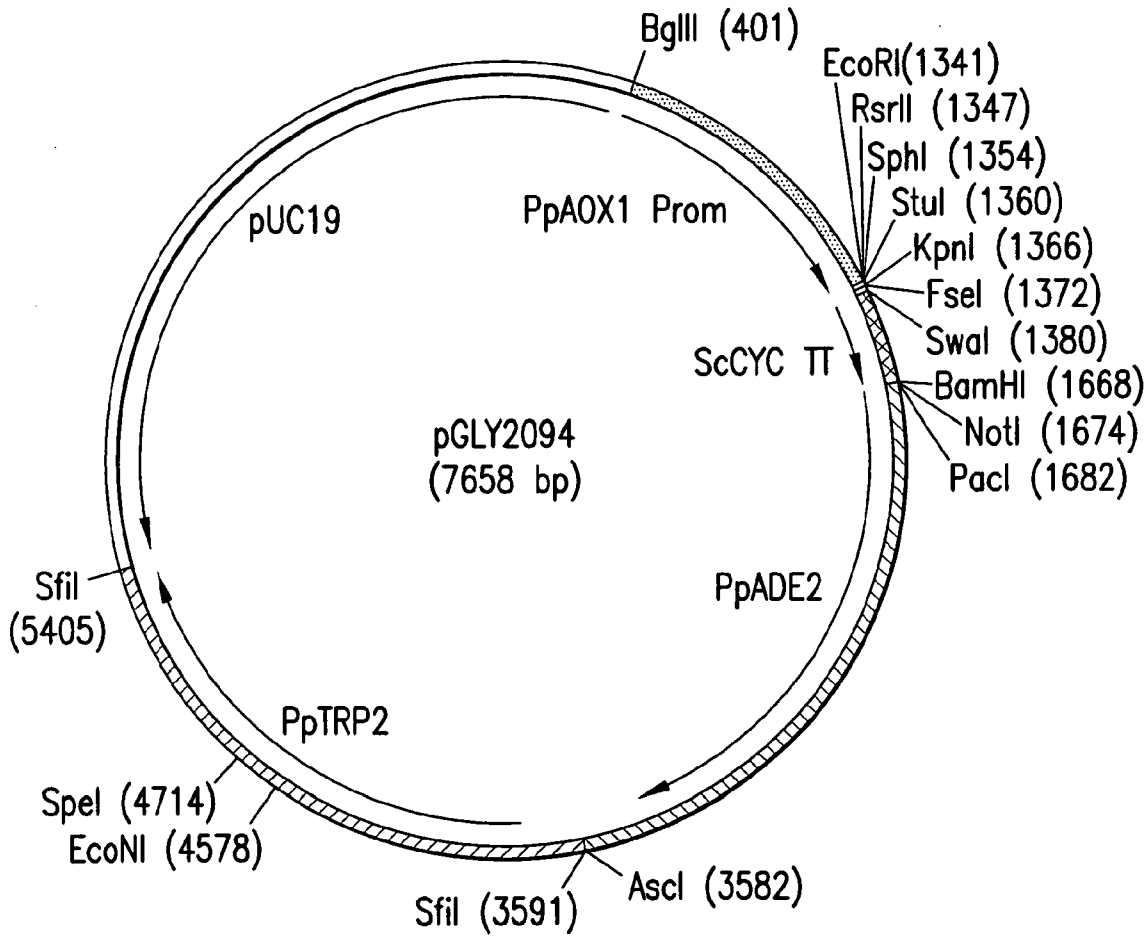

BglII (401)
EcoRI(1341)
RsrII (1347)
SphI (1354)
StuI (1360)
KpnI (1366)
FseI (1372)
SwaI (1380)
BamHI (1668)
NotI (1674)
PacI (1682)
pUC19
PpAOX1 Prom
ScCYC TT
pGLY2094
(7658 bp)
PpADE2
SfiI
(5405)
PpTRP2
SpeI (4714)
EcoNI (4578)
SfiI (3591)
AscI (3582)

FIG.2F



FIG.3B

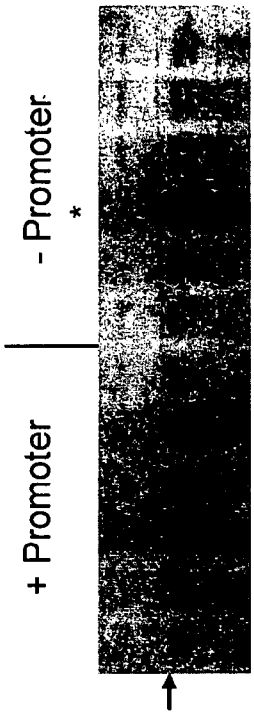


FIG.3D

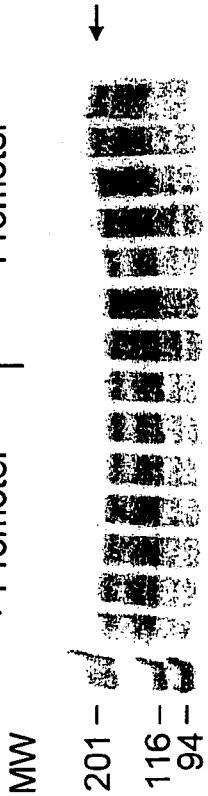


FIG.3A

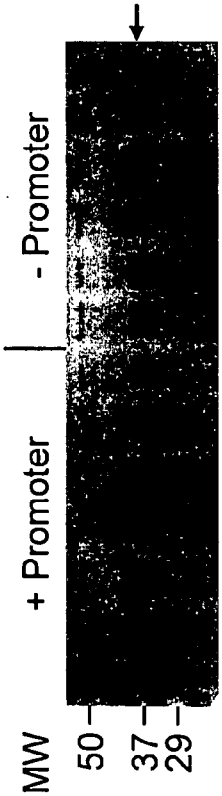


FIG.3C

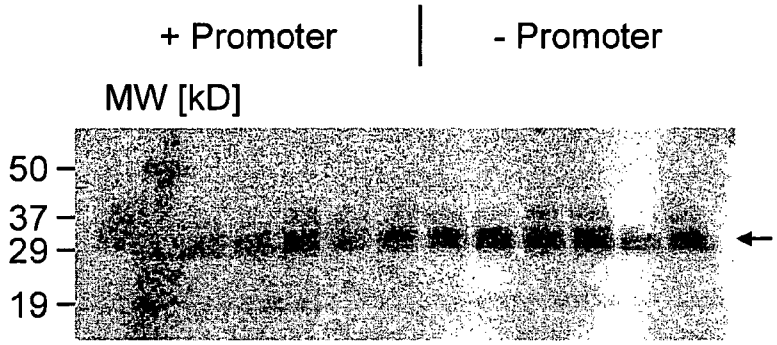

+ Promoter
- Promoter
MW [kD]
50
37
29
19

FIG.4A

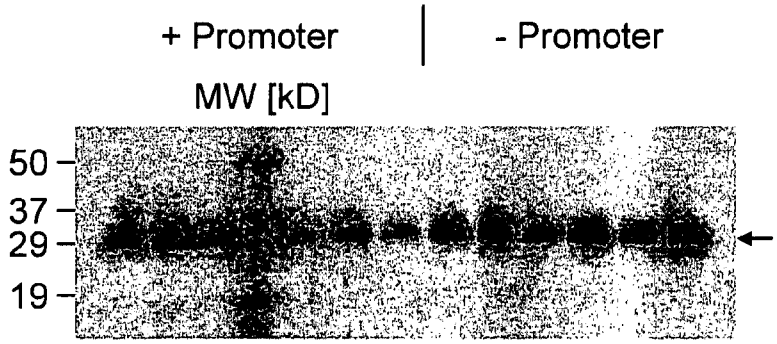

+ Promoter
- Promoter
MW [kD]
50
37
29
19

FIG.4B