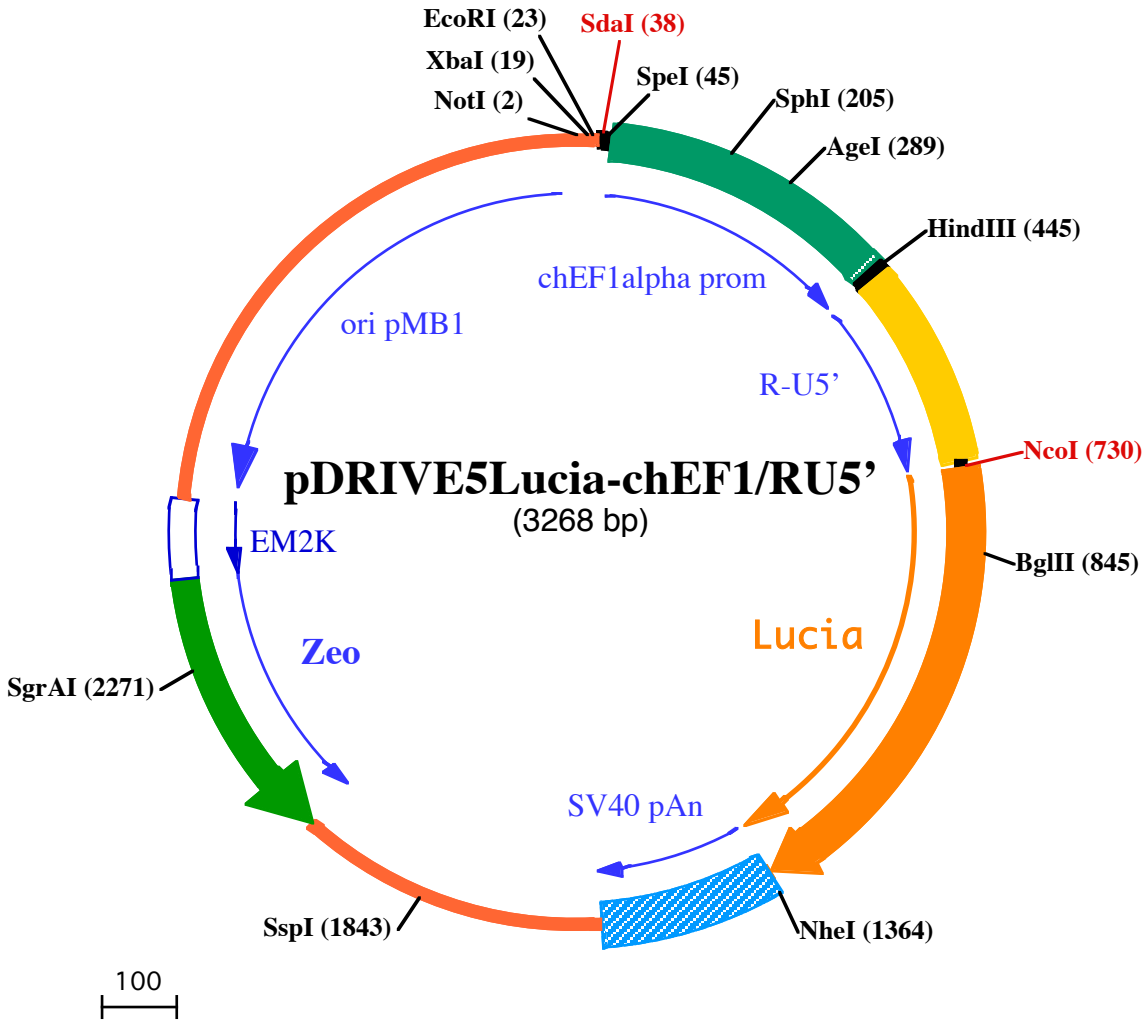
EcoRI (23)
SdaI (38)
XbaI (19)
SpeI (45)
NotI (2)
SphI (205)
AgeI (289)
HindIII (445)
chEF1alpha prom
ori pMB1
R-U5'
NcoI (730)
pDRIVE5Lucia-chEF1/RU5'
(3268 bp)
EM2K
BglII (845)
Zeo
Lucia
SgrAI (2271)
SV40 pAn
SspI (1843)
NheI (1364)
100

EcoRI (23)
NotI (2) XbaI (19) SdaI (38) SpeI (45)
1 GCGGCCGCGTCGACGATATCTAGAATTCGGATCCTGCAGGGCCCACTAGTGGAGCCGAGAGTAATTCATACAAAAGGACTCGCCCCTGCCTTGGGGAATC

101 CCAGGGACCGTCGTTAAACTCCCACTAACGTAGAACCCAGAGATCGCTGCGTTCCCGCCCCCTCACCCGCCCGCTCTCGTCATCACTGAGGTGGAGAAGA

SphI (205) AgeI (289)
201 GCATGCGTGAGGCTCCGGTTCCCGTCAGTGGGCAGAGCGCACATCGCCCACAGTCCCCGACAAGTTGGGGGGAGGGGTCGGCAATTGAACCGGTGCCTAG

301 AGAAGGTGGCGCGGGGTAAACTGGGAAAGTGATGTCGTGTACTGGCTCCGCCTTTTTCCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCCG

HindIII (445)
401 TGAACGTTCTTTTTCGCAACGGGTTTGCCGTCAGAACGCAGCTGAAGCTTCGAGGGGCTCGCATCTCTCCTTCACGCGCCCGCCGCCCTACCTGAGGCCG

501 CCATCCACGCCGGTTGAGTCGCGTTCTGCCGCCTCCCGCCTGTGGTGCCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACCG

601 GGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCCTGACCCTGCTTGCTCAACTCTACGTCTTTGTTTCGTTTT

NcoI (730)
701 CTGTTCTGCGCCGTTACAGATCCAAGCCACCATGGAAATCAAGGTGCTGTTTGCCCTCATCTGTATTGCTGTTGCTGAGGCAAAACCCACTGAAATCAAT
1 Me tG lu I leLysVa lLeuPheA laLeu I leCys I leA laVa lA laG luA laLysP roTh rG lu I leAsn

BglII (845)
801 GAAGACCTCAATATAGCTGCTGTGGCCTCCAACTTTGCCACCACAGATCTTGAGACTGACCTGTTCACCAACTGGGAGACCATGAATGTGATTAGCACTG
24 G luAspLeuAsn I leA laA laVa lA laSe rAsnPheA laTh rTh rAspLeuG luTh rAspLeuPheTh rAsnT rpG luTh rMe tAsnVa l I leSe rTh rA
901 ACACAGAGCAGGTGAACACAGATGCTGACAGGGGCAAGCTGCCTGGCAAAAAACTCCCCCCAGATGTCCTGAGGGAGCTGGAGGCCAATGCCAGAAGGGC
57 spTh rG luG lnVa lAsnTh rAspA laAspA rgG lyLysLeuP roG lyLysLysLeuP roP roAspVa lLeuA rgG luLeuG luA laAsnA laA rgA rgA l
1001 TGGTTGCACAAGAGGCTGCCTCATTTGCCTCTCCCACATTAAGTGCACCCCTAAGATGAAGAAATTTATCCCTGGCAGGTGCCACACTTATGAAGGTGAA
90 aG lyCysTh rA rgG lyCysLeu I leCysLeuSe rH is I leLysCysTh rP roLysMe tLysLysPhe I leP roG lyA rgCysH isTh rTy rG luG lyG lu
1101 AAGGAGTCTGCTCAGGGAGGGATTGGAGAGGCAATTGTTGATATCCCAGAGATTCCTGGCTTCAAGGATAAGGAGCCACTGGACCAGTTTATTGCTCAAG
124 LysG luSe rA laG lnG lyG ly I leG lyG luA la I leVa lAsp I leP roG lu I leP roG lyPheLysAspLysG luP roLeuAspG lnPhe I leA laG lnV
1201 TGGACCTCTGTGCTGATTGCACCACTGGCTGTCTGAAGGGCCTTGCCAATGTCCAGTGCTCTGACCTCCTGAAGAAGTGGCTTCCCCAGAGGTGTACCAC
157 a lAspLeuCysA laAspCysTh rTh rG lyCysLeuLysG lyLeuA laAsnVa lG lnCysSe rAspLeuLeuLysLysT rpLeuP roG lnA rgCysTh rTh

NheI (1364)
1301 TTTTGCCAGCAAGATTCAGGGTAGGGTGGACAAAATCAAGGGTCTGGCTGGGGACAGATGATAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGT
190 rPheA laSe rLys I leG lnG lyA rgVa lAspLys I leLysG lyLeuA laG lyAspA rg•••

1401 TTGGACAAACCACAACTAGAATGCAGTGAAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACA

1501 AGTTAACAACAACAATTGCATTCATTTTATGTTTCAGGTTCAGGGGGAGGTGTGGGAGGTTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAA

1601 TTAATTCTAAAATACAGCATAGCAAAACTTTAACCTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTG
1701 TTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAGATATAGTGTATTTTCCCAAGGTTTGAACTAGCTCTTCATTTCTTTAT

SspI (1843)
1801 GTTTTAAATGCACTGACCTCCCACATTCCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCA
1901 GAATCCAGATGCTCAAGGCCCTTCATAATATCCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGA
2001 GCTTCTAGCTTATCCTCAGTCCTGCTCCTCTGCCACAAAGTGCACGCAGTTGCCGGCCGGGTCGCGCAGGGCGAACTCCCGCCCCCACGGCTGCTCGCCG
125 •••AspG lnG luG luA laVa lPheH isVa lCysAsnG lyA laP roAspA rgLeuA laPheG luA rgG lyT rpP roG lnG luG ly I
2101 ATCTCGGTCATGGCCGGCCCGGAGGCGTCCCGGAAGTTCGTGGACACGACCTCCGACCACTCGGCGTACAGCTCGTCCAGGCCGCGCACCCACACCCAGG
96 leG luTh rMe tA laP roG lySe rA laAspA rgPheAsnTh rSe rVa lVa lG luSe rT rpG luA laTy rLeuG luAspLeuG lyA rgVa lT rpVa lT rpA l

SgrAI (2271)
2201 CCAGGGTGTTGTCCGGCACCACCTGGTCCTGGACCGCGCTGATGAACAGGGTCACGTCGTCCCGGACCACACCGGCGAAGTCGTCCTCCACGAAGTCCCG
63 aLeuTh rAsnAspP roVa lVa lG lnAspG lnVa lA laSe r I lePheLeuTh rVa lAspAspA rgVa lVa lG lyA laPheAspAspG luVa lPheAspA rg
2301 GGAGAACCCGAGCCGGTCGGTCCAGAACTCGACCGCTCCGGCGACGTCGCGCGCGGTGAGCACCGGAACGGCACTGGTCAACTTGGCCATGATGGCTCCT
30 Se rPheG lyLeuA rgAspTh rT rpPheG luVa lA laG lyA laVa lAspA rgA laTh rLeuVa lP roVa lA laSe rTh rLeuLysA laMe t

2401 CCTGTCAGGAGAGGAAAGAGAAGAAGGTTAGTACAATTGCTATAGTGAGTTGTATTATACTATGCAGATATACTATGCCAATGATTAATTGTCAAACTAG

2501 GGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCC

2601 CTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCG

2701 CTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGT

2801 TCGGTGTAGGTCGTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACC

2901 CGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCC

3001 TAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAA

3101 ACCACCGCTGGTAGCGGTGGTTTTTTTGTTTGCAAGCAGCAGATTACGCGCAGAAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTG

3201 ACGCTCAGTGGAACGAAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCA