pTriEx-3 Vector

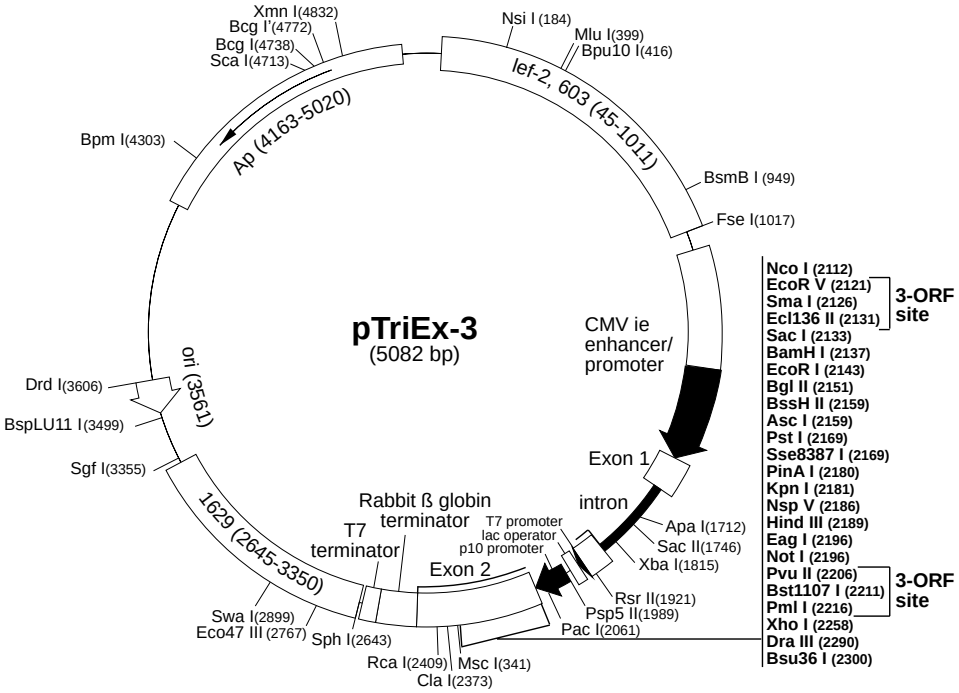
TB281 04/00

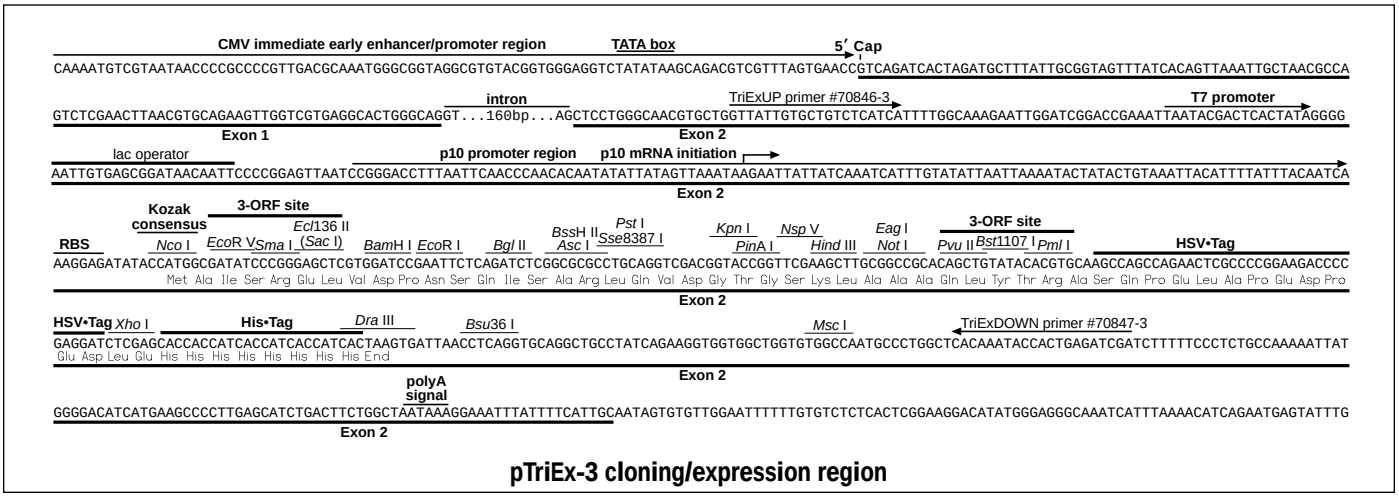
Baculovirus Locus	polh
Promoters	CMV immediate early p10 T7*lac*
C-terminal fusion options	HSV•Tag His•Tag
Cloning options	polylinker

The pTriEx™-3 vector[1] (cat. no. 70823-3)is designed to allow rapid characterization of target genes in multiple expression systems. With this vector a single recombinant plasmid can be used to test expression in *E. coli*, insect and vertebrate cells. Transient vertebrate expression is mediated by the CMV immediate early enhancer and promoter[2]. For expression in insect cells, pTriEx-3 contains flanking baculovirus sequences to permit the generation of recombinant baculoviruses using the BacVector™ System. In baculovirus-infected insect cells, expression is driven by the very late p10 promoter. Expression in *E. coli* is regulated by the tightly controlled T7*lac* promoter. Expression can be induced in hosts such as NovaBlue by infecting with λCE6, a phage that constitutively expresses T7 RNA polymerase from the λp_L and λp_I promoters. Alternatively, pTriEx recombinant plasmids can be transferred into a (DE3)pLacI host that allows IPTG based induction.

pTriEx-3 sequence landmarks

CMV ie enhancer/promoter	1021–1597
Vertebrate transcription start	1598
T7 promoter	1931–1947
T7 transcription start	1948
lac operator	1952–1972
p10 promoter region	1986–2099
p10 transcription start	2030–2031
Multiple cloning sites (*Nco* I–*Dra* III)	2112–2290
HSV•Tag® coding sequence	2222–2257
His•Tag® coding sequence	2264–2287
Rabbit globin terminator region	2375–2581
T7 terminator	2585–2632
pUC origin	3561
bla coding sequence	4163–5020





pTriEx-3 cloning/expression region

pTriEx-3 Restriction Sites

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Enzyme	# Sites	Locations
AatII	6	1140 1193 1276 1462 1583 3090
AccI	3	244 2172 2210
AciI	43	
AflIII	5	399 2213 3160 3310 3499
AhdI	2	499 4233
AluI	18	
AlwI	11	
Alw26I	8	285 949 1449 1659 1897 2495 4294 5070
AlwNI	2	1865 3914
ApaI	1	1712
ApaLI	2	3812 4900
ApoI	11	
AscI	1	2159
AvaI	4	1732 2124 2249 2258
AvaII	5	1921 1989 2718 4371 4593
BamHI	1	2137
BanI	3	1480 2177 4181
BanII	2	1712 2133
BbsI	3	498 2250 3268
BbvI	14	
BcgI	1	4738
BcgI'	1	4772
BfaI	9	491 804 1606 1816 2585 2769 3039 3993 4423
BglI	4	1105 1227 1298 4353
BglII	1	2151
BpmI	1	4303
Bpu10I	1	416
BsaI	2	285 4294
BsaAI	3	1355 2216 2809
BsaHI	9	495 1137 1190 1273 1459 1580 3087 3287 4770
BsaJI	11	
BsaWI	5	833 2180 3704 3851 4524
BsgI	2	1689 2326
BsiEI	6	2199 3355 3415 3838 4603 4752
BsiHKAI	5	2133 2265 3816 4819 4904
BsII	10	264 1064 1718 1766 2610 2976 3521 3539 3704 3983
BsmBI	1	949
BsmFI	8	1190 1341 1509 1764 1783 2002 2417 3215
Bsp1286I	6	1712 2133 2265 3816 4819 4904
BspLU11I	1	3499
BspMI	2	1686 2158
BsrI	13	
BsrBI	3	1728 1960 3432
BsrDI	4	79 2460 4294 4468
BsrFI	6	42 781 1013 1806 2180 4313
BsrGI	3	49 768 3139
BssHII	1	2159
BssSI	3	2132 3671 4897
Bst1107I	1	2211
BstXI	2	167 2349
BstYI	7	2137 2151 2254 4139 4150 4858 4875
Bsu36I	1	2300
Cac8I	18	
ClaI	1	2373
CviJI	66	
DdeI	8	416 2148 2287 2300 2367 3773 4190 4730
DpnI	20	
DraI	4	429 2529 2899 4810
DraIII	1	2290
DrdI	1	3606
DsaI	2	1743 2112

Enzyme	# Sites	Locations
EaeI	4	1011 2196 2339 4621
EagI	1	2196
EarI	3	51 547 5028
Ecl136II	1	2131
Eco47III	1	2767
Eco57I	2	4046 4900
EcoO109I	3	1709 1989 2601
EcoRI	1	2143
EcoRII	8	1103 1296 1864 2348 2668 3525 3645 3658
EcoRV	1	2121
FauI	7	1108 1134 1301 1529 1712 1738 1775
Fnu4HI	24	
FokI	3	4199 4380 4667
FseI	1	1017
FspI	2	659 4455
HaeII	2	2769 3746
HaeIII	16	
HgaI	9	146 503 966 1541 2709 2869 3295 3609 4759
HhaI	16	
HincII	3	245 1531 2173
HindIII	1	2189
HinfI	9	156 446 1425 1937 2772 3148 3474 3869 4228
HphI	8	183 879 2264 2270 4303 4719 4925 4960
KpnI	1	2181
MaeIII	13	
MboII	15	
MluI	1	399
MnlI	23	
MscI	1	2341
MseI	37	
MslI	7	950 1380 1837 2538 4485 4644 5003
MspI	20	
MspA1I	6	655 1745 2206 3840 4085 4868
MunI	2	2798 3143
MwoI	18	
NciI	8	1975 1987 2125 2126 2240 3878 4416 4767
NcoI	1	2112
NdeI	4	1249 2509 2569 2577
NgoAIV	2	781 1013
NlaIII	14	
NlaIV	12	
NotI	1	2196
NsiI	1	184
NspI	2	2643 3503
NspV	1	2186
PacI	1	2061
PinAI	1	2180
PleI	6	150 1419 1931 3142 3877 4222
PmlI	1	2216
Psp1406I	2	4459 4832
Psp5II	1	1989
PstI	1	2169
PvuI	2	3355 4603
PvuII	1	2206
RcaI	1	2409
RsaI	15	
RsrII	1	1921
SacI	1	2133
SacII	1	1746
SalI	2	243 2171
Sau3AI	20	
Sau96I	12	
ScaI	1	4713

Enzyme	# Sites	Locations
ScrFI	16	
SfaNI	9	14 191 1372 1599 2434 3595 4489 4680 4929
SfcI	6	1857 1943 2165 3763 3954 4474
SgfI	1	3355
SmaI	1	2126
SnaBI	2	1355 2809
SphI	1	2643
Sse8387I	1	2169
SspI	4	425 2903 3100 5037
StyI	2	2112 2596
SwaI	1	2899
TaiI	18	
TaqI	12	
TfiI	3	446 2772 3474
ThaI	12	
TseI	14	
Tsp45I	3	1802 4489 4700
Tsp509I	38	
TspRI	11	
VspI	5	1022 1930 2057 3294 4405
XbaI	1	1815
XhoI	1	2258
XmnI	1	4832

Enzymes that do not cut pTriEx-3:

AflII	AvrII	BclI	Bpu1102I	BsaBI
BseRI	BsmI	BspEI	BstEII	EcoNI
EheI	HpaI	NarI	NheI	NruI
PflMI	PmeI	PshAI	SanDI	SapI
SexAI	SfiI	SgrAI	SpeI	SrfI
StuI	SunI	Tth111I	UbaEI	XcmI