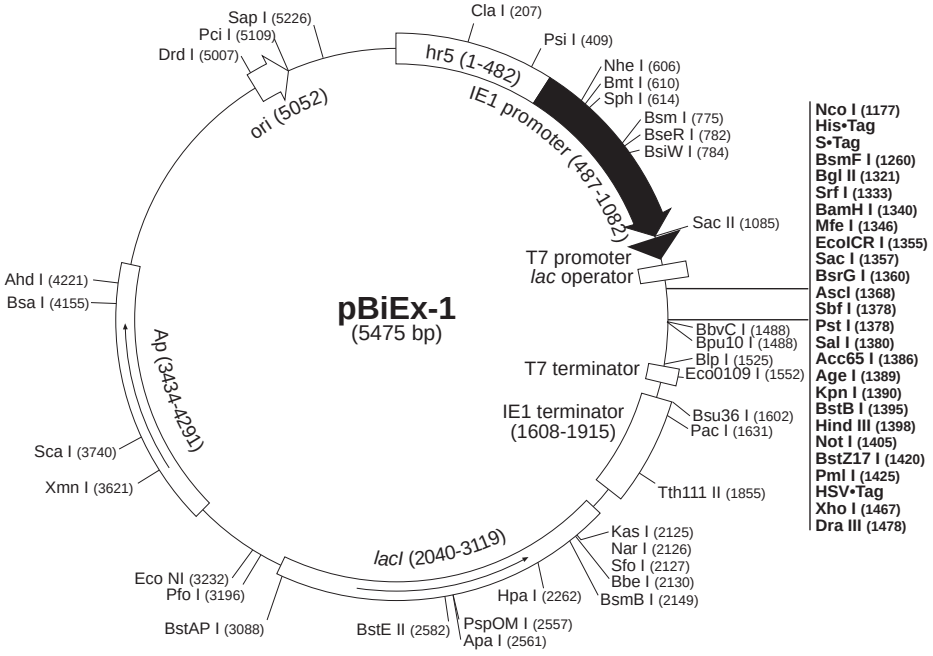
pBiEx-1 Vector

	Cat. No.
pBiEx-1 DNA	71234-3

pBiEx-1 sequence landmarks

hr5 enhancer	1–482
IE1 promoter	487–1082
IE1 transcription start	1034
T7 promoter	1092–1108
T7 transcription start	1109
His•Tag® coding sequence	1185–1202
S•Tag™ coding sequence	1212–1256
Multiple cloning sites (*Bgl* II–*Dra* III)	1321–1481
HSV•Tag® coding sequence	1431–1466
T7 terminator	1536–1583
IE1 terminator	1608–1915
lacI coding sequence	2040–3119
bla (Ap) coding sequence	3434–4291
pUC origin	5052

The pBiEx™ vectors are designed for cloning and high-level expression of proteins in both bacteria and in transiently transfected *Spodoptera*-derived insect cells. In *E. coli*, target gene transcription is regulated by the tightly controlled T7*lac* promoter, and a ribosome binding site (rbs) directs translation initiation. In insect cells, transcription is driven by the AcNPV-derived hr5 enhancer and immediate early promoter, IE1. pBiEx-1 contains N-terminal His•Tag and S•Tag coding sequences, and a C-terminal HSV•Tag coding sequence. Unique sites are shown on the circle map.



pBiEx-1 cloning/expression region

pBiEx-1 Restriction Sites

TB354 0303

Enzyme	# Sites	Locations
AatII	2	1918 3302
Acc65I	1	1386
AccI	2	1381 1419
AclI	4	1865 3104 3619 3992
AflIII	6	192 372 872 1422 2764 5109
AgeI	1	1389
AhdI	1	4221
AlwNI	2	1296 4700
ApaI	1	2561
ApaLI	3	2784 3549 4795
AscI	1	1368
AseI	8	831 1091 1631 2022 2081 4046 5281 5340
AvaI	5	1279 1331 1458 1467 5470
BamHI	1	1340
BanI	6	1386 1995 2125 2844 4268 5365
BanII	3	1338 1357 2561
BbeI	1	2129
BbsI	3	1459 2279 2618
BbvCI	1	1488
BceAI	9	68 174 731 1381 1664 2280 2907 3247 4609
BcgI	4	1749 1944 2444 3683
BciVI	5	533 868 2312 3384 4911
BclI	2	778 2750
BglI	2	995 4103
BglII	1	1321
BlpI	1	1525
Bme1580I	4	2561 2788 3553 4799
BmrI	6	1893 1966 2606 2843 3240 4181
BmtI	1	610
BpmI	3	2443 2932 4152
Bpu10I	1	1488
BpuEI	6	1589 1956 3617 4485 4726 5024
BsaAI	4	193 373 784 1425
BsaHI	5	1915 2126 2809 3299 3681
BsaI	1	4155
BsaWI	6	1389 1942 2445 3925 4756 4903
BsaXI	5	803 1344 1762 2096 5271
BseRI	1	781
BseYI	3	2230 2365 4805
BsgI	2	2719 2919
BsiEI	8	207 845 1408 1985 3703 3852 4775 5199
BsiHKAI	7	1357 1474 2788 3272 3553 3638 4799
BsiWI	1	784
BsmAI	6	2149 2536 2662 3067 3379 4155
BsmBI	1	2149
BsmFI	1	1260
BsmI	1	775
Bsp1286I	9	1338 1357 1474 2561 2788 3272 3553 3638 4799
BspCNI	10	838 1496 1501 1517 1615 2185 3733 4252 4418 4827
BspHI	2	3381 4389
BspMI	2	1281 1367
BsrBI	5	863 1121 3379 5180 5421
BsrDI	4	2357 2723 3987 4161
BsrFI	3	1389 3078 4136
BsrGI	1	1360
BssHII	4	502 763 1368 2353
BssSI	4	793 1356 3552 4936
Bst1107I	1	1420
BstAPI	1	3088
BstBI	1	1395
BstEII	1	2582
BstXI	3	2718 2841 2970
BstYI	11	1321 1340 1463 1988 3200 3574 3591 4359 4371 4457 4468
BstZ17I	1	1420
Bsu36I	1	1602
BtgI	2	1082 1177
BtsI	6	727 2037 2405 3802 3822 5329
ClaI	1	207
DraI	3	3643 4335 4354
DraIII	1	1478
DrdI	1	5007
EaeI	5	842 1405 2090 3828 5270
EagI	2	842 1405
EarI	4	1208 3147 3422 5226
EciI	5	916 2979 4079 4907 5053
Ecl136II	1	1355
Eco57I	2	3555 4567
Eco57MI	5	2443 2932 3555 4152 4567
EcoICRI	1	1355
EcoNI	1	3232
EcoO109I	1	1552
EcoRI	6	83 185 292 365 472 5465
EcoRV	2	239 2318
FspI	2	654 3998
HaeII	5	2129 2372 3153 4869 5239
HincII	3	1044 1382 2262
HindIII	1	1398
HpaI	1	2262
KasI	1	2125
KpnI	1	1390
MfeI	1	1346
MluI	2	872 2764
MslI	6	2398 2428 2716 3450 3809 3968
NarI	1	2126
NcoI	1	1177
NheI	1	606
NotI	1	1405
NspI	3	614 691 5113
NspV	1	1395
PacI	1	1631
PciI	1	5109
PflMI	2	1247 3189
PfoI	1	3196
PinAI	1	1389
PmlI	1	1425
PpiI	2	3593 4403
PsiI	1	409
PspOMI	1	2557
PsrI	3	89 298 371
PstI	1	1378
PvuI	2	207 3852
PvuII	5	776 1415 2075 2168 5289
SacI	1	1357
SacII	1	1085
SalI	1	1380
SapI	1	5226
SbfI	1	1378
ScaI	1	3740
SfcI	6	1104 1374 1775 3975 4653 4844
SfoI	1	2127
SmaI	3	1281 1333 5472
SmlI	7	1467 1568 1971 3596 4464 4741 5003
SphI	1	614
SrfI	1	1333
Sse8387I	1	1378
SspI	3	973 1792 3416
StyI	3	568 1177 1547
TaqII	4	1971 3689 3874 5213
TatI	3	724 1360 3738
TspGWI	6	552 587 636 790 3440 3782
Tth111I	1	1855
XbaI	2	1138 1910
XcmI	4	1203 2379 2397 2913
XhoI	1	1467
XmaI	3	1279 1331 5470
XmnI	1	3621
ZraI	2	1916 3300

Enzymes that do not cut pBiEx-1:

AarI	AfeI	AflII	AleI	AloI
AsiSI	AvrII	BaeI	BfrBI	BmgBI
BplI	BsaBI	BspEI	BtrI	FalI
FseI	FspAI	MscI	NaeI	NdeI
NgoMIV	NruI	NsiI	PmeI	PpuMI
PshAI	RsrII	SanDI	SexAI	SfiI
SgrAI	SnaBI	SpeI	StuI	SwaI