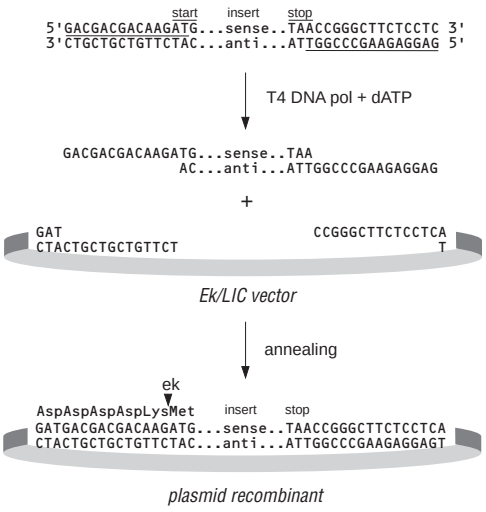
pIEx-2 Vector

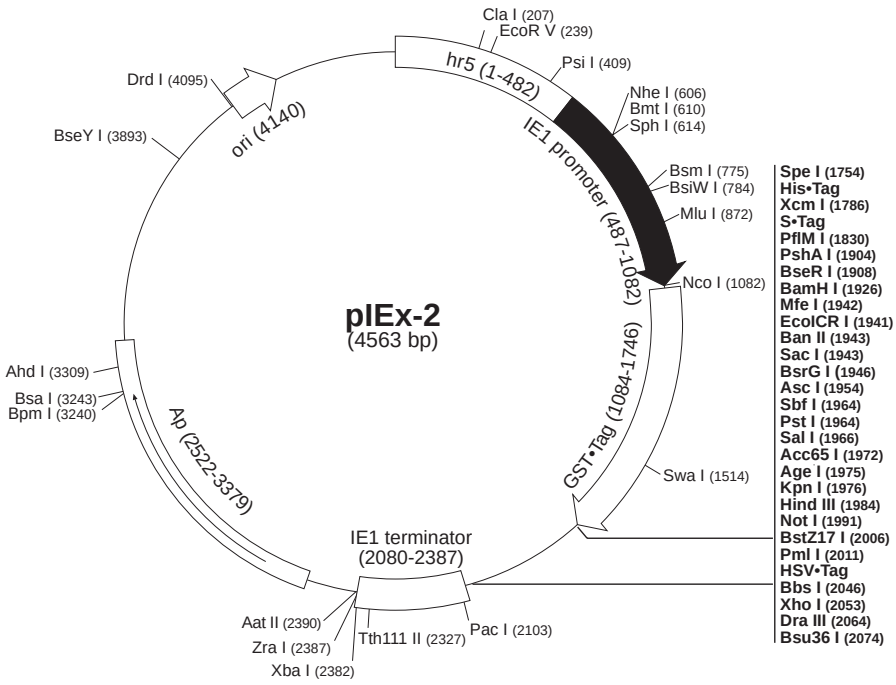
	Cat. No.
pIEx-2 DNA	71238-3
pIEx-2 Ek/LIC Vector	71239-3

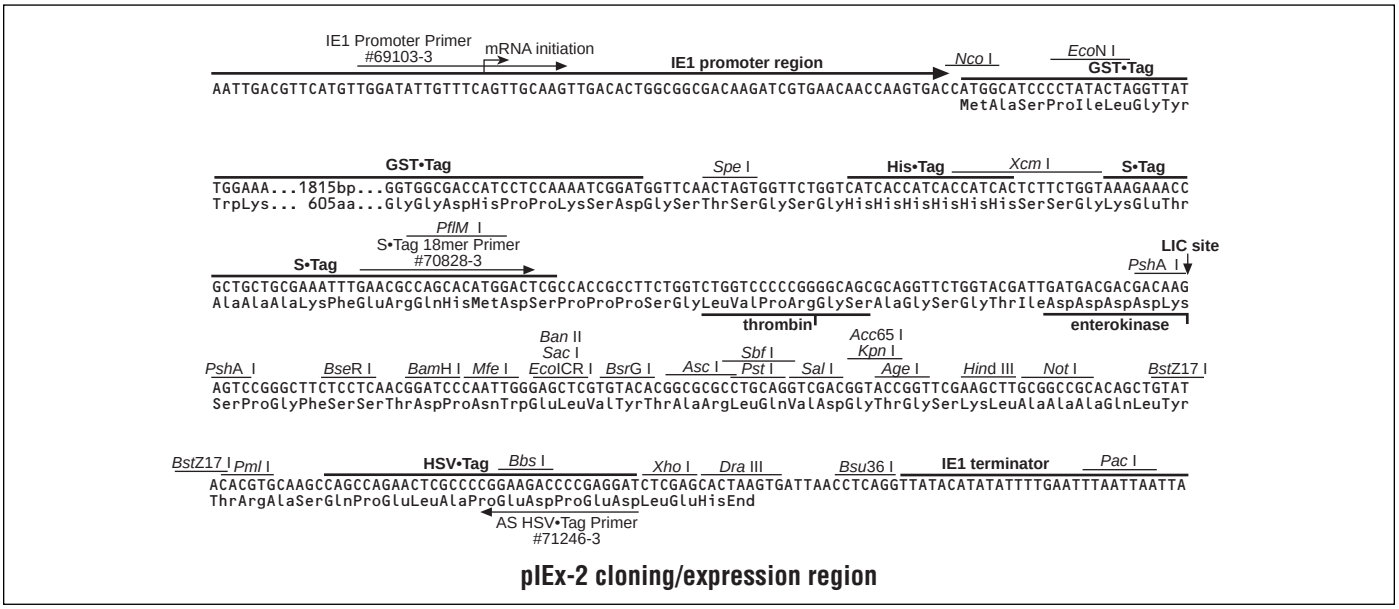
pIEx-2 sequence landmarks	
hr5 enhancer	1–482
IE1 promoter	487–1082
IE1 transcription start	1034
GST•Tag coding sequence	1084–1746
His•Tag® coding sequence	1768–1785
S•Tag™ coding sequence	1795–1839
Multiple cloning sites (*Psh*A I–*Dra* III)	1900–2079
HSV•Tag® coding sequence	2017–2052
IE1 terminator	2080–2387
bla (Ap) coding sequence	2522–3379
pUC origin	4140

The pIEx™ vectors are designed for cloning and high-level expression of proteins in transiently transfected *Spodoptera*-derived insect cells. Transcription is driven by the AcNPV-derived hr5 enhancer and immediate early promoter, IE1. pIEx-2 contains N-terminal GST•Tag, His•Tag, and S•Tag coding sequences, and a C-terminal HSV•Tag coding sequence. Unique sites are shown on the circle map. N-terminal vector encoded sequences can be completely removed by cloning into the *Psh*A I site and cleaving the fusion protein with enterokinase.

pIEx-2 is also available as an Ek/LIC vector (Cat. No. 71239-3). The Ek/LIC vector is prepared for rapid directional cloning of PCR-amplified DNA. Using specifically designed primers for amplification, inserts can be efficiently cloned without the need for restriction enzyme digestion or ligation (below left).







pIEx-2 cloning/expression region

pIEx-2 Restriction Sites

TB348 0303

Enzyme	# Sites	Locations
AatII	1	2390
Acc65I	1	1972
AccI	2	1967 2005
AclI	3	2337 2707 3080
AflIII	6	192 372 872 1325 2008 4197
AgeI	1	1975
AhdI	1	3309
AlwNI	2	1879 3788
ApaLI	2	2637 3883
AscI	1	1954
AseI	5	831 2103 3134 4369 4428
AvaI	4	1862 2044 2053 4558
BamHI	1	1926
BanI	3	1972 3356 4453
BanII	1	1943
BbsI	1	2045
BceAI	6	68 174 731 1967 2136 3697
BcgI	3	1117 2221 2771
BciVI	4	533 868 2472 3999
BclI	2	778 1521
BglI	2	995 3191
Bme1580I	2	2641 3887
BmrI	2	2365 3269
BmtI	1	610
BpmI	1	3240
BpuEI	4	2705 3573 3814 4112
BsaAI	4	193 373 784 2011
BsaHI	2	2387 2769
BsaI	1	3243
BsaWI	4	1975 3013 3844 3991
BsaXI	3	1930 2234 4359
BseRI	1	1908
BseYI	1	3893
BsgI	1	1373
BsiEI	7	207 845 1994 2791 2940 3863 4287
BsiHKAI	5	1943 2060 2641 2726 3887
BsiWI	1	784
BsmAI	2	2467 3243
BsmFI	2	774 1843
BsmI	1	775
Bsp1286I	5	1943 2060 2641 2726 3887
BspCNI	6	838 2087 2821 3340 3506 3915
BspHI	2	2469 3477
BspMI	2	1864 1953
BsrBI	5	863 1378 2467 4268 4509
BsrDI	2	3075 3249
BsrFI	2	1975 3224
BsrGI	1	1946
BssHII	3	502 763 1954
BssSI	4	793 1942 2640 4024
Bst1107I	1	2006
BstBI	2	1484 1981
BstYI	8	1926 2049 2662 2679 3447 3459 3545 3556
BstZ17I	1	2006
Bsu36I	1	2074
BtgI	1	1082
BtsI	4	727 2890 2910 4417
ClaI	1	207
DraI	5	1514 1623 2731 3423 3442
DraIII	1	2064
DrdI	1	4095
EaeI	5	842 1292 1991 2916 4358
EagI	2	842 1991
EarI	4	1166 1791 2510 4314
EciI	4	916 3167 3995 4141
Ecl136II	1	1941
Eco57I	2	2643 3655
Eco57MI	3	2643 3240 3655
EcoICRI	1	1941
EcoNI	1	1097
EcoO109I	1	1119
EcoRI	6	83 185 292 365 472 4553
EcoRV	1	239
FspI	2	654 3086
HaeII	2	3957 4327
HincII	2	1044 1968
HindIII	1	1984
KpnI	1	1976
MfeI	1	1932
MluI	1	872
MscI	1	1294
MslI	4	1181 2538 2897 3056
NcoI	1	1082
NheI	1	606
NotI	1	1991
NspI	4	614 691 1329 4201
NspV	2	1484 1981
PacI	1	2103
PciI	2	1325 4197
PflMI	1	1830
PinAI	1	1975
PmlI	1	2011
PpiI	2	2681 3491
PshAI	1	1904
PsiI	1	409
PsrI	3	89 298 371
PstI	1	1964
PvuI	2	207 2940
PvuII	3	776 2001 4377
SacI	1	1943
SalI	1	1966
SapI	2	1166 4314
SbfI	1	1964
ScaI	2	1660 2828
SfcI	5	1960 2247 3063 3741 3932
SmaI	2	1864 4560
SmlI	5	2053 2684 3552 3829 4091
SpeI	1	1753
SphI	1	614
Sse8387I	1	1964
SspI	3	973 2264 2504
StyI	2	568 1082
SwaI	1	1514
TaqII	3	2777 2962 4301
TatI	4	724 1658 1946 2826
TspGWI	7	552 587 636 790 1939 2528 2870
Tth111I	1	2327
XbaI	1	2382
XcmI	1	1786
XhoI	1	2053
XmaI	2	1862 4558
XmnI	2	1480 2709
ZraI	1	2388

Enzymes that do not cut pIEx-2:

AarI	AfeI	AflII	AleI	AloI
ApaI	AsiSI	AvrII	BaeI	BbeI
BbvCI	BfrBI	BglII	BlpI	BmgBI
BplI	Bpu10I	BsaBI	BsmBI	BspEI
BstAPI	BstEII	BstXI	BtrI	FalI
FseI	FspAI	HpaI	KasI	NaeI
NarI	NdeI	NgoMIV	NruI	NsiI
PfoI	PmeI	PpuMI	PspOMI	RsrII
SacII	SanDI	SexAI	SfiI	SfoI
SgrAI	SnaBI	SrfI	StuI	