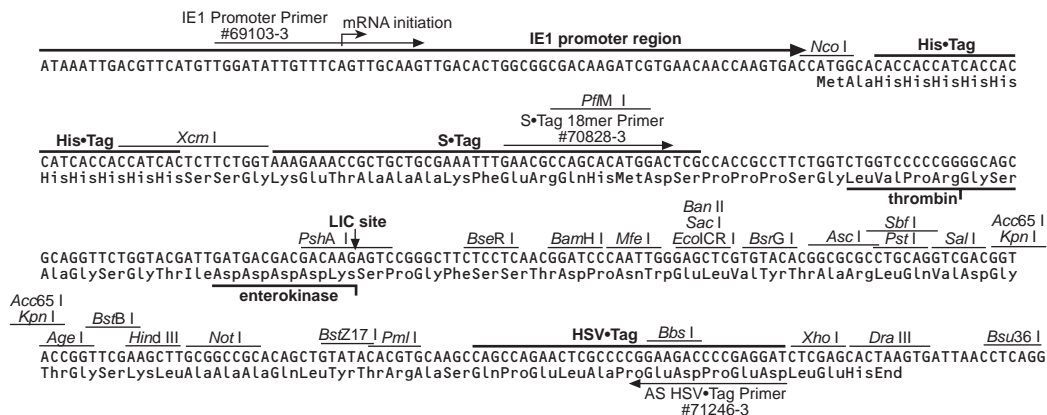
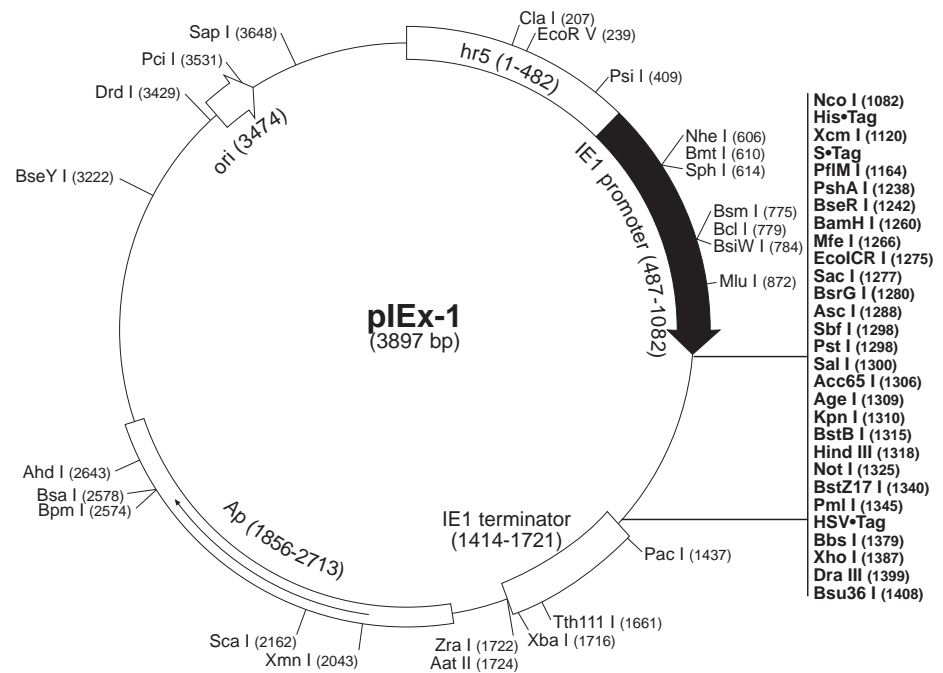
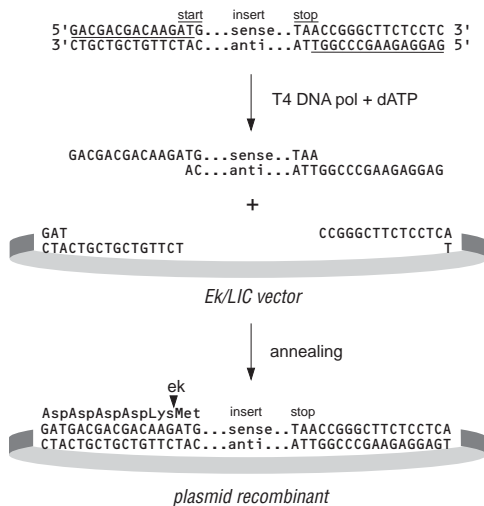


pEx-1 Vector

	Cat. No.
pEx-1 DNA	71241-3
pEx-1 Ek/LIC Vector	71236-3
pEx-1 sequence landmarks	
hr5 enhancer	1-482
IE1 promoter	487-1082
IE1 transcription start	1034
His•Tag [®] coding sequence	1090-1119
S•Tag [™] coding sequence	1129-1173
Multiple cloning sites (<i>PshA</i> I– <i>Dra</i> III)	1234-1401
HSV•Tag [®] coding sequence	1351-1386
IE1 terminator	1414-1721
<i>bla</i> (Ap) coding sequence	1856-2713
pUC origin	3474

The pEx[™] 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. pEx-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. N-terminal vector encoded sequences can be completely removed by cloning into the *PshA* I site and cleaving the fusion protein with enterokinase.

pEx-1 is also available as an Ek/LIC vector (Cat. No. 71236-3). 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).



pEx-1 cloning/expression region

pIEx-1 Restriction Sites

TB349 0303

Enzyme	# Sites	Locations	Enzyme	# Sites	Locations		
AatII	1	1724	EcoRI	6	83 185 292 365 472		
Acc65I	1	1306			3887		
AccI	2	1301 1339	EcoRV	1	239		
AcII	3	1671 2041 2414	FspI	2	654 2420		
AflIII	5	192 372 872 1342 3531	HaeII	2	3291 3661		
AgeI	1	1309	HincII	2	1044 1302		
AhdI	1	2643	HindIII	1	1318		
AlwNI	2	1213 3122	KpnI	1	1310		
ApaLI	2	1971 3217	MfeI	1	1266		
AscI	1	1288	MluI	1	872		
Asel	5	831 1437 2468 3703 3762	MslI	3	1872 2231 2390		
AvaI	4	1196 1378 1387 3892	NcoI	1	1082		
BamHI	1	1260	NheI	1	606		
BanI	3	1306 2690 3787	NotI	1	1325		
BanII	1	1277	NspI	3	614 691 3535		
BbsI	1	1379	NspV	1	1315		
BceAI	6	68 174 731 1301 1470	PacI	1	1437		
		3031	PciI	1	3531		
BcgI	2	1555 2105	PfiMI	1	1164		
BciVI	4	533 868 1806 3333	PinAI	1	1309		
BclI	1	778	PmlI	1	1345		
BglII	2	995 2525	PpiI	2	2015 2825		
Bme1580I	2	1975 3221	PshAI	1	1238		
Bmrl	2	1699 2603	PsiI	1	409		
BmtI	1	610	Psrl	3	89 298 371		
Bpml	1	2574	PstI	1	1298		
BpuEI	4	2039 2907 3148 3446	PvuI	2	207 2274		
BsaAI	4	193 373 784 1345	PvuII	3	776 1335 3711		
BsaHI	2	1721 2103	SacI	1	1277		
BsaI	1	2577	SalI	1	1300		
BsaWI	4	1309 2347 3178 3325	SapI	1	3648		
BsaXI	3	1264 1568 3693	SbfI	1	1298		
BseRI	1	1242	Scal	1	2162		
BseVI	1	3227	Sfcl	5	1294 1581 2397 3075 3266		
BsiEI	7	207 845 1328 2125 2274	SmaI	2	1198 3894		
		3197 3621	SmlI	5	1387 2018 2886 3163 3425		
BsiHKAI	5	1277 1394 1975 2060 3221	SphI	1	614		
BsiWI	1	784	Sse8387I	1	1298		
BsmAI	2	1801 2577	Sspl	3	973 1598 1838		
BsmFI	2	774 1177	StyI	2	568 1082		
BsmI	1	775	TaqII	3	2111 2296 3635		
Bsp1286I	5	1277 1394 1975 2060 3221	TatI	3	724 1280 2160		
BspCNI	6	838 1421 2155 2674 2840	TspGWI	7	552 587 636 790 1273		
		3249			1862 2204		
BspHI	2	1803 2811	Tth111I	1	1661		
BspMI	2	1198 1287	XbaI	1	1716		
BsrBI	4	863 1801 3602 3843	XcmI	1	1120		
BsrDI	2	2409 2583	XhoI	1	1387		
BsrFI	2	1309 2558	XmaI	2	1196 3892		
BsrGI	1	1280	XmnI	1	2043		
BssHII	3	502 763 1288	ZraI	1	1722		
BssSI	4	793 1276 1974 3358					
Bst1107I	1	1340	Enzymes that do not cut pIEx-1:				
BstBI	1	1315	AarI	AfeI	AflII	AleI	Alol
BstYI	8	1260 1383 1996 2013 2781	Apal	AsiSI	AvrII	BaeI	BbeI
		2793 2879 2890	BbvCI	BfrBI	BgIII	BlpI	BmgBI
BstZ17I	1	1340	BpII	Bpu10I	BsaBI	BsgI	BsmBI
Bsu36I	1	1408	BspEI	BstAPI	BstEII	BstXI	BtrI
BtgI	1	1082	EcoNI	EcoO109I	FalI	FseI	FspAI
BtsI	4	727 2224 2244 3751	HpaI	KasI	MscI	NaeI	NarI
ClaI	1	207	NdeI	NgoMIV	NruI	NsiI	PfoI
DraI	3	2065 2757 2776	PmeI	PpuMI	PspOMI	RsrII	SacII
DraIII	1	1398	SanDI	SexAI	SfiI	SfoI	SgrAI
DrdI	1	3429	SnaBI	SpeI	SrfI	StuI	Swal
EaeI	4	842 1325 2250 3692					
EagI	2	842 1325					
EarI	3	1125 1844 3648					
Ecil	4	916 2501 3329 3475					
Ecl136II	1	1275					
Eco57I	2	1977 2989					
Eco57MI	3	1977 2574 2989					
EcoICRI	1	1275					