pIEx/Bac™-3 Expression Vector

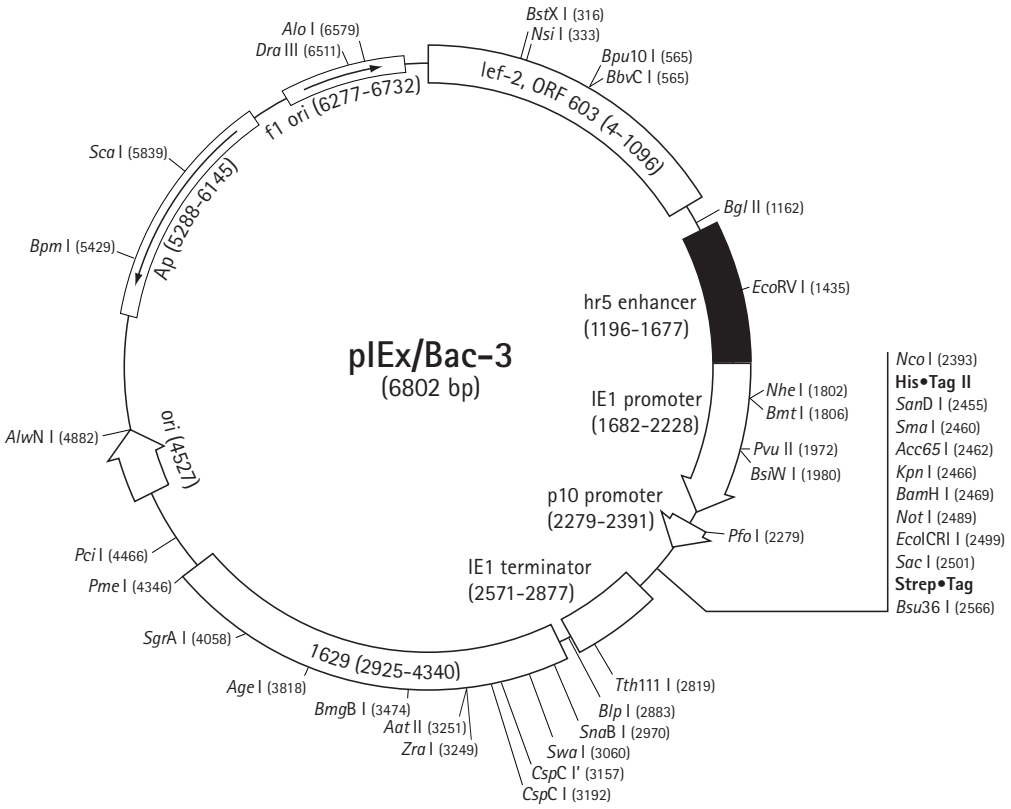
TB470 0807

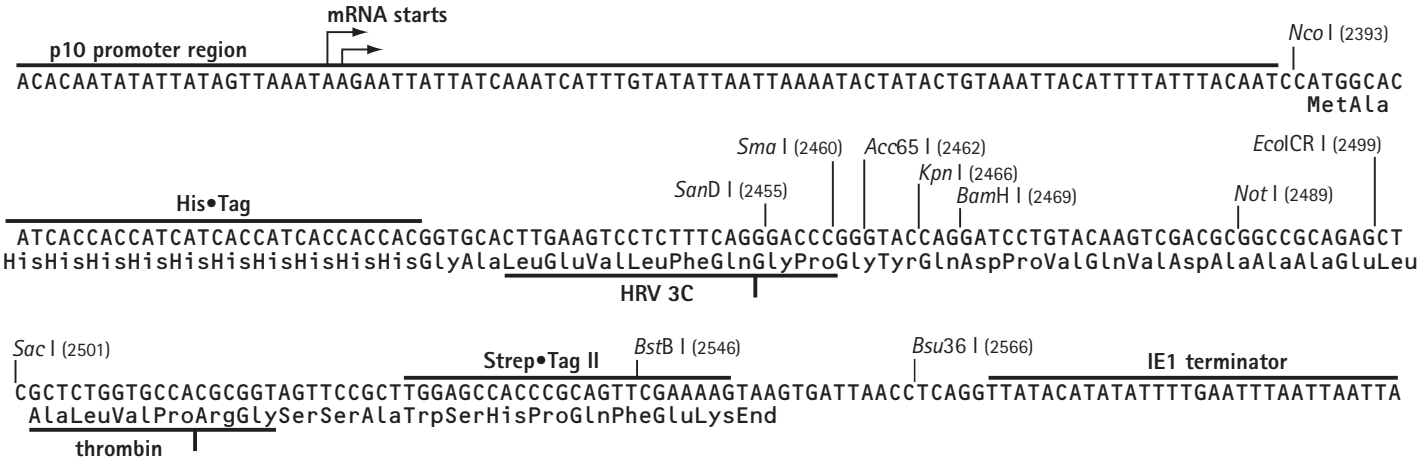
	Cat No.
pIEx/Bac-3 DNA	71726-3

pIEx/Bac-3 sequence landmarks	
hr5 enhancer	1196–1677
IE1 promoter	1682–2228
IE1 transcription start	2212
p10 promoter	2279–2391
p10 transcription starts	2323, 2324
His•Tag® coding sequence	2400–2429
Strep•Tag® II coding sequence	2529–2552
Multiple cloning sites (*Nco* I–*Bsu*36 I)	2393–2566
IE1 terminator	2571–2877
pUC ori	4527
bla (Amp^R)	5288–6145
f1 origin	6277–6732

The dual-purpose pIEx/Bac™ vectors are designed for cloning and high-level expression of proteins by transiently transfecting *Spodoptera*-derived insect cells or by generating baculovirus recombinants. Transient transfection and early baculovirus expression is driven by a promoter/enhancer combination that recruits endogenous insect cell transcription machinery, the AcNPV derived hr5 enhancer and ie1 promoter. Late/very late expression in the baculovirus mode is driven by the strong p10 promoter. The pIEx/Bac-3 vector carries an N-terminal His•Tag® coding sequence followed by a recognition site for HRV 3C protease. The multiple cloning region is followed by an optional C-terminal Strep•Tag® II coding sequence (1). The presence of two "gentle elution" tags at both the N- and C-terminus is ideal for dual purification strategies designed to isolate full-length fusion proteins (2). Unique restriction sites are shown on the circle map.

1. Skerra, A., Schmidt, T.G.M. (2000) *Meth. Enzymol.* **326**, 271–304.
2. Fiedler, M., Horn, C., Bandtlow, C., Schwab, M.E. (2002) *Protein Eng.* **15**, 931–941.





pIEx/Bac-3 cloning/expression regions

pIEx/Bac™-3 Restriction Sites

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Enzyme	# Sites	Locations				
AatII	1	3251				
Acc65I	1	2462				
AclI	4	2829	5585	5958	6721	
AcuI	2	5014	6026			
AfeI	2	2928	4111			
AgeI	1	3818				
AhdI	2	648	5359			
AleI	2	2429	4049			
AlfI	2	2789	2823			
AlfI'	2	2789	2823			
AloI	1	6579				
AlwNI	1	4882				
ApaLI	3	2432	4780	6026		
AseI	7	21	129	2027	2351	2595
		3455	5531			
BaeI	1	2446				
BaeI'	1	2479				
BamHI	1	2469				
BbeI	2	3804	4071			
BbsI	2	647	3429			
BbvCI	1	565				
BcgI	3	2679	3785	5864		
BcgI'	3	2713	3751	5898		
BciVI	5	731	1729	2064	4669	6196
BclI	3	1157	1167	1974		
BdaI	4	2547	2581	4537	4571	
BdaI'	4	2547	2581	4537	4571	
BglI	3	2191	5479	6747		
BglII	1	1162				
BlpI	1	2883				
BmgBI	1	3474				
BmrI	2	2857	5399			
BmtI	1	1806				
BpiI	2	4236	4268			
BpiI'	2	4236	4268			
BpmI	1	5429				
Bpu10I	1	565				
BpuEI	5	4238	4557	4855	5096	5964
BsaI	2	434	5420			
BsaXI	3	290	2696	6577		
BsaXI'	3	320	2726	6547		
BsgI	3	3615	3909	4063		
BsiWI	1	1980				
BsmBI	2	1098	3820			
BsmI	2	86	1971			
BspHI	2	5186	6194			
BsrBI	6	2059	3923	4218	4399	6200
		6364				
BsrDI	3	228	5420	5594		
BsrGI	4	198	917	2475	3300	
BssHII	2	1698	1959			
BssSI	3	1989	4639	6023		
BstBI	1	2546				
BstXI	1	316				
Bsu36I	1	2566				
BtgZI	3	2842	3603	6503		
BtsI	3	1923	5759	5779		
ClaI	3	1403	3942	4265		
CspCI	1	3192				
CspCI'	1	3157				
DraI	7	46	578	3060	4346	5225
		5244	5936			
DraIII	1	6511				
DrdI	2	4574	6555			
EagI	2	2038	2489			
EarI	4	200	696	6154	6792	
EciI	8	2112	3711	3717	3723	4528
		4674	5502	6802		
EcoICRI	1	2499				
EcoNI	1	2449				
EcoP15I	3	4904	4962	5113		
EcoRI	5	1279	1381	1488	1561	1668

Enzyme	# Sites	Locations				
EcoRV	1	1435				
FspI	4	808	1850	5581	6754	
KasI	2	3800	4067			
KpnI	1	2466				
MfeI	4	2959	3304	3865	4230	
MluI	2	548	2068			
NaeI	2	932	6405			
NarI	2	3801	4068			
NcoI	1	2393				
NgoMIV	2	930	6403			
NheI	1	1802				
NotI	1	2489				
NsiI	1	333				
PacI	2	2355	2595			
PciI	1	4466				
PfoI	1	2279				
PmeI	1	4346				
PpiI	3	5149	6023	6579		
PpiI'	3	5181	5991	6547		
PsiI	6	469	558	1605	2995	4138
		6636				
PvuI	3	1403	5729	6775		
PvuII	1	1972				
SacI	1	2501				
SalI	3	107	392	2482		
SanDI	1	2455				
ScaI	1	5839				
SfoI	2	3802	4069			
SgrAI	1	4058				
SmaI	1	2460				
SnaBI	1	2970				
SphI	2	1810	2893			
SspI	9	156	574	2169	2756	3064
		3261	4134	6163	6716	
SwaI	1	3060				
TaqII	4	4368	5707	5892	6606	
TaqII'	3	308	6045	6062		
TstI	2	2426	2701			
TstI'	2	2458	2733			
Tth111I	1	2819				
XmaI	1	2458				
XmnI	2	3511	5958			
ZraI	1	3249				

Enzymes that do not cut pIEx/Bac-3:

AarI	AflII	AjuI	AjuI'	ApaI	AscI
AsiSI	AvrII	BsaBI	BseRI	BspEI	BspMI
BstAPI	BstEII	BstZ17I	FalI	FalI'	FseI
HindIII	HpaI	MscI	NdeI	NruI	
PasI	PflMI	PmlI	PshAI	PspOMI	PspXI
PstI	RsrII	SacII	SapI	SbfI	SexAI
SfiI	SpeI	SrfI	StuI	XbaI	XcmI
XhoI					