

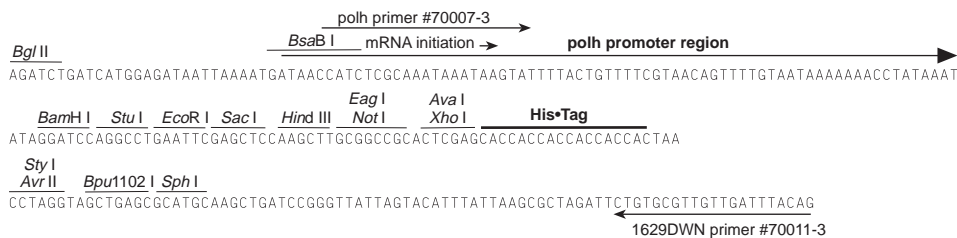
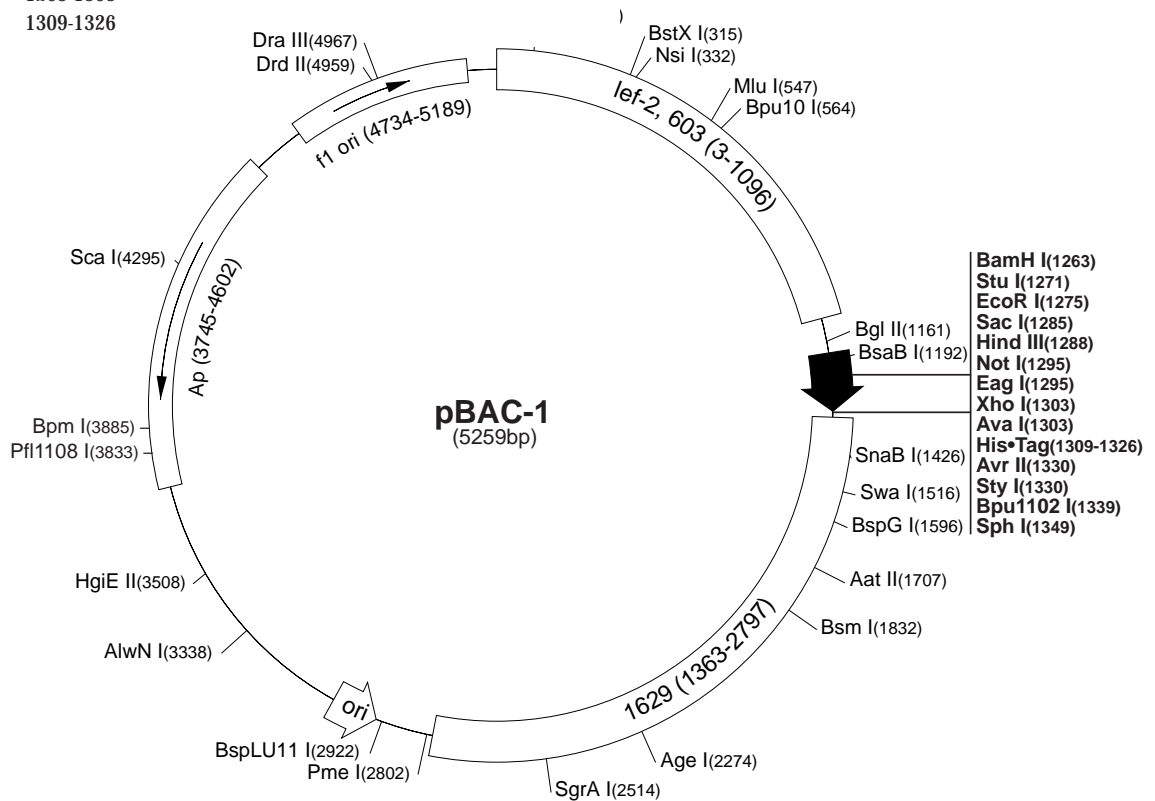
pBAC-1 Transfer Plasmid

b	Locus	polh
	Promoter	polh
	N-terminal fusion	non-ORF
	C-terminal fusion option	His•Tag
	Cloning options	polylinker

pBAC™-1 is a baculovirus transfer plasmid (Cat. No. 70003-3) designed for simplified cloning and expression of target genes in insect cells. The plasmid is compatible with BacVector™-1000, -2000 or -3000 Triple Cut Virus DNA for low background transfection and efficient utilization of the polh promoter. Inserts in pBAC-1 must contain their own translation initiation codon. The vector encodes an optional C-terminal His•Tag® fusion sequence that may be utilized if the insert allows read-through in the proper reading frame. Unique restriction sites are indicated on the circle map. The cloning/expression region of the coding strand transcribed from the polh promoter is shown below. The f1 origin is oriented so that infection with helper phage will produce virions containing single stranded DNA that corresponds to the coding strand. Single stranded sequencing of phage-derived DNA can be performed using the 1629DWN primer (Cat. No. 70011-3).

pBAC-1 sequence landmarks

polh promoter region	1177-1259
polh transcription start	1210-1211
wt polh 5'UTR -1 position	1259
Multiple cloning sites (<i>Bam</i> H I - <i>Xho</i> I)	1263-1308
His•Tag coding sequence	1309-1326



pBAC-1 cloning/expression region

pBAC-1 Restriction Sites

Enzyme	# Sites	Locations	Enzyme	# Sites	Locations	Enzyme	# Sites	Locations		
AatII	1	1707	BstYI	8	1161 1263 3563 3574 3660 3672 4440 4457	PmeI	1	2802		
AccI	2	107 392	Cac8I	23		Psp1406I	3	4041 4414 5177		
AceIII	4	2092 2874 4114 5120	CjeI	20		PvuI	2	4185 5231		
Acil	56		CjePI	12		RcaI	2	3642 4650		
AfIII	5	547 1777 1927 2032 2922	Clal	2	2398 2721	RleAI	2	305 2497		
AgeI	1	2274	CviJI	61		RsaI	11			
AluI	23		CviRI	15		SacI	1	1285		
AlwI	14		DdeI	7	564 1339 2280 3197 3606 3772 4312	Sall	2	106 391		
Alw21I	5	1285 1310 3240 4401 4486	DpnI	23		Sau96I	6	3857 3936 3953 4175 4970 5238		
Alw44I	2	3236 4482	DraI	7	45 577 1516 2802 3681 3700 4392	Sau3AI	23			
AlwNI	1	3338	Drall	1	4967	Scal	1	4295		
ApoI	11		DrdI	2	3030 5011	ScrFI	9	1268 1360 2950 3071 3084 3302 3998 4349 5258		
AvaI	1	1303	DrdII	1	4959	SfaNI	6	339 2171 3019 4071 4262 4511		
Avall	2	3953 4175	EaeI	2	1295 4203	SfiI	5	2759 3187 3378 4056 4741		
AvrII	1	1330	EagI	1	1295	SgrAI	1	2514		
BamHI	1	1263	Eam1105I	2	647 3815	SnaBI	1	1426		
BanI	7	2229 2256 2460 2511 2523 3763 4923	EarI	4	199 695 4610 5248	SphI	1	1349		
BanII	2	1285 4893	Ecil	7	11 2153 2159 2165 2996 3142 3970	Sspl	7	155 573 1520 1717 2590 4619 5172		
BbsI	2	646 1885	Eco47III	2	1384 2567	StuI	1	1271		
BbvI	18		Eco57I	2	3470 4482	StyI	1	1330		
BccI	10	1194 1591 2048 2123 2402 3852 3976 4263 4957 4974	EcoRI	1	1275	Swal	1	1516		
Bce83I	5	2694 3013 3311 3552 4420	EcoRII	5	1266 2948 3069 3082 5256	TaqI	15			
Bcefl	6	20 2090 2204 2245 3424 4937	FauI	9	1971 1985 2133 2342 2372 2734 4756 4825 5229	TaqII	7	307 2824 4163 4348 4501 4518 5062		
BcgI	4	2207 2241 4320 4354	FokI	3	3781 3962 4249	TfiI	3	594 1389 2897		
BclI	2	1156 1166	FspI	3	807 4037 5210	Thal	14			
Bfal	9	639 952 1331 1386 1656 3417 3670 4005 4811	GdlI	2	1295 4203	Tsel	18			
BglI	2	3935 5203	HaeI	4	1271 2937 2948 3400	Tsp45I	3	4071 4282 4786		
BglII	1	1161	HaeII	8	1386 2260 2425 2527 2569 3170 4809 4817	Tsp509I	40			
BmgI	2	2012 2512	HaeIII	13		Tth1111I	5	1061 1580 3512 3519 3551		
BpmI	1	3885	Hgal	9	294 651 1114 1486 1912 3033 3611 4341 4742	UbaII	17			
Bpu10I	1	564	HgiEI	1	3508	VspI	4	20 128 1911 3987		
Bpu1102I	1	1339	HhaI	29		XhoI	1	1303		
BsaI	2	433 3876	Hin4I	10	270 646 1478 1613 2077 2113 2360 2705 3814 3888	XmnI	2	1967 4414		
BsaAI	2	1426 4964	HincII	2	108 393					
BsaBI	1	1192	HindIII	1	1288	AflII	Apal	ApaBI	AscI	BaeI
BsaHI	6	643 1704 1904 2257 2524 4352	Hinfl	10	304 594 1389 1765 2822 2897 3293 3810 5012 5034	BseRI	BspEI	BspMI	BssHII	Bst1107I
BsaJI	2	1330 3082	HphI	9	331 1027 2190 3658 3885 4301 4507 4542 4964	BstEII	Bsu36I	DsaI	EcoNI	EcoO109I
BsaWI	5	981 2274 3128 3275 4106	Maell	15		EcoRV	FseI	HpaI	KpnI	MscI
BsaXI	2	303 5016	MaellI	13		NcoI	NdeI	NheI	NruI	NspV
Bsbl	4	864 2032 2221 5057	Mboll	15		PacI	PfiMI	PmlI	PshAI	Psp5II
BscGI	7	2441 3249 3595 3816 3840 4362 4870	Mlul	1	547	PstI	PvuII	RsrII	SacII	SapI
BsgI	3	2071 2365 2519	Mmel	4	2341 3137 3321 4989	SexAI	SfiI	Sgfl	Smal	SpeI
Bsil	2	3095 4479	MnII	25		SrfI	Sse8387I	SunI	Tth111I	XbaI
BsiEI	6	1298 2838 3262 4185 4334 5231	Msel	43						
BsII	9	190 412 1593 2944 2962 3128 3407 4745 5071	Msil	7	70 1098 2505 2769 4067 4226 4585	XcmI				
BsmI	1	85	MspI	16						
BsmAI	8	433 1097 2213 2276 2712 2771 3876 4652	MspAII	6	803 2349 2529 3264 3509 4450					
BsmBI	2	1097 2276	MunI	4	1415 1760 2321 2686					
BsmFI	1	1832	Mwol	18						
BsoFI	35		NarI	2	2257 2524					
Bsp24I	6	1842 1874 3415 3447 3593 3625	NciI	4	1360 3302 3998 4349					
Bsp1286I	8	1285 1310 2014 2514 3240 4401 4486 4893	NgoAIV	2	929 4859					
BspGI	1	1596	NlaIII	11						
BspLU11I	1	2922	NlaIV	18						
BsrI	11		Nott	1	1295					
BsrBI	5	2379 2674 2855 4656 4820	Nsil	1	332					
BsrDI	3	227 3876 4050	NspI	3	114 1349 2926					
BsrFI	6	929 2274 2466 2514 3895 4859	Pfi1108I	1	3833					
BsrGI	3	197 916 1756	PleI	7	298 1759 2816 3301 3804 5020 5028					
BstXI	1	315								

Enzymes that do not cut pBAC-1:

AflII	Apal	ApaBI	AscI	BaeI
BseRI	BspEI	BspMI	BssHII	Bst1107I
BstEII	Bsu36I	DsaI	EcoNI	EcoO109I
EcoRV	FseI	HpaI	KpnI	MscI
NcoI	NdeI	NheI	NruI	NspV
PacI	PfiMI	PmlI	PshAI	Psp5II
PstI	PvuII	RsrII	SacII	SapI
SexAI	SfiI	Sgfl	Smal	SpeI
SrfI	Sse8387I	SunI	Tth111I	XbaI