

pBACgus-1 Transfer Plasmid

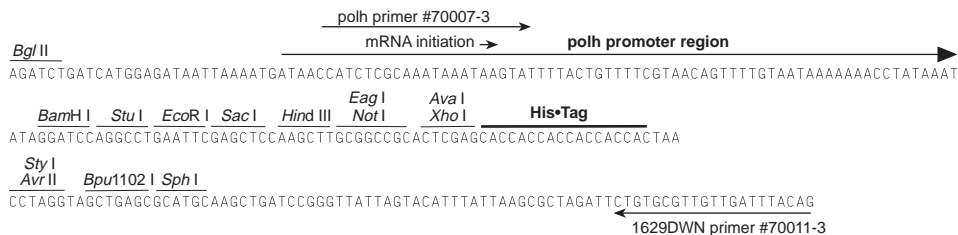
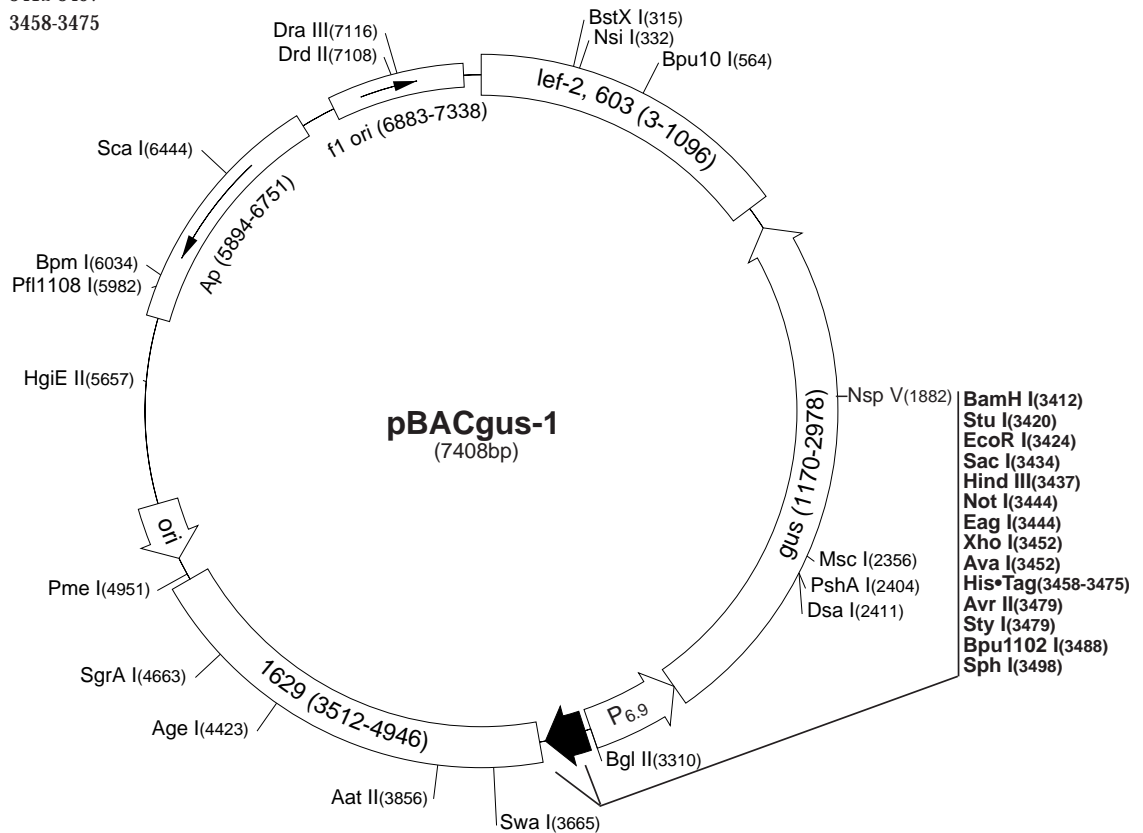


Locus	polh
Promoter	polh
N-terminal fusion	non-ORF
C-terminal fusion option	His•Tag
Cloning options	polylinker

pBACgus-1 is a baculovirus transfer plasmid (Cat. No. 70054-3) 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. The plasmid also carries the *gus* gene encoding β-glucuronidase under control of the late basic protein promoter (*P_{6,9}*), which serves as a reporter to verify recombinant viruses by staining with X-gluc. Inserts in pBACgus-1 must contain their own translation initiation codon. The vector provides optional expression of a C-terminal His•Tag® fusion sequence by allowing read-through of inserts 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).

pBACgus-1 sequence landmarks

polh promoter region	3326-3408
polh transcription start	3359-3360
wt polh 5'UTR -1 position	3408
Multiple cloning sites (<i>Bam</i> H I - <i>Xho</i> I)	3412-3457
His•Tag coding sequence	3458-3475



pBACgus-1 cloning/expression region

pBACgus-1 Restriction Sites

Enzyme	# Sites	Locations	Enzyme	# Sites	Locations	Enzyme	# Sites	Locations
AatII	1	3856	BsrGI	5	197 916 1427 1853 3905	NsiI	1	332
AccI	3	107 392 3305	BstXI	1	315	NspI	5	114 1422 2405 3498 5075
AceIII	5	1806 4241 5023 6263 7269	BstYI	11		NspV	1	1882
Acil	75		Cac8I	28		Pfi1108I	1	5982
AfIII	9	547 1418 1662 1680 2378 3926 4076 4181 5071	CjeI	32		PleI	7	298 3908 4965 5450 5953 7169 7177
AgeI	1	4423	CjePI	22		PmeI	1	4951
AluI	25		Clal	2	4547 4870	PshAI	1	2404
AlwI	19		CviJI	84		Psp1406I	3	6190 6563 7326
Alw21I	7	1719 2044 3434 3459 5389 6550 6635	CviRI	28		PvuI	2	6334 7380
Alw44I	4	1715 2040 5385 6631	DdeI	9	564 1824 3233 3488 4429 5346 5755 5921 6461	RcaI	3	2089 5791 6799
AlwNI	2	2138 5487	DpnI	33		RleAI	4	305 2701 2938 4646
ApoI	14		Dral	7	45 577 3665 4951 5830 5849 6541	RsaI	17	
AvaI	1	3452	DrallI	1	7116	SacI	1	3434
Avall	3	2972 6102 6324	DrdI	2	5179 7160	Sall	3	106 391 3304
AvrII	1	3479	DrdII	1	7108	Sau96I	9	2010 2144 2972 6006 6085 6102 6324 7119 7387
BamHI	1	3412	Dsal	1	2411	Sau3AI	33	
BanI	7	4378 4405 4609 4660 4672 5912 7072	EaeI	3	2354 3444 6352	Scal	1	6444
BanII	2	3434 7042	EagI	1	3444	ScrFI	17	
BbsI	2	646 4034	Eam1105I	2	647 5964	SfaNI	16	
BbvI	26		EarI	7	199 695 1413 1851 1977 6759 7397	Sfcl	6	2963 4908 5336 5527 6205 6890
BccI	16		Ecil	8	11 1692 4302 4308 4314 5145 5291 6119	SgrAI	1	4663
Bce83I	5	4843 5162 5460 5701 6569	Eco47III	2	3533 4716	SnaBI	2	2593 3575
Bcefl	14		Eco57I	3	1958 5619 6631	SphI	1	3498
Bcgl	10	1188 1222 1872 1906 2049 2083 4356 4390 6469 6503	EcoRI	1	3424	Sspl	10	155 573 1708 3023 3114 3669 3866 4739 6768 7321
BclI	3	1156 2884 3315	EcoRII	8	1502 2429 2832 3415 5097 5218 5231 7405	StuI	1	3420
Bfal	10	639 952 2287 3480 3535 3805 5566 5819 6154 6960	EcoRV	2	2189 2420	StyI	1	3479
BglI	2	6084 7352	FauI	15		Swal	1	3665
BglII	1	3310	FokI	6	1553 2178 3212 5930 6111 6398	TaqI	23	
Bmgl	2	4161 4661	Fspl	3	807 6186 7359	TaqII	9	307 1760 2443 4973 6312 6497 6650 6667 7211
Bpml	1	6034	GdIII	2	3444 6352	TfiI	6	594 2061 2264 2469 3538 5046
Bpu10I	1	564	HaeI	7	1507 2356 2736 3420 5086 5097 5549	Thal	28	
Bpu1102I	1	3488	HaeII	9	1357 3535 4409 4574 4676 4718 5319 6958 6966	Tsel	26	
Bsal	2	433 6025	HaeIII	19		Tsp45I	8	1781 2214 2406 2622 2703 6220 6431 6935
BsaAI	4	2074 2593 3575 7113	Hgal	19		Tsp509I	49	
BsaBI	4	1383 1477 2322 3341	HgiEII	1	5657	Tth1111I	7	1061 1161 3244 3729 5661 5668 5700
BsaHI	6	643 3853 4053 4406 4673 6501	Hhal	37		UbaII	20	
BsaJI	4	2411 2429 3479 5231	Hin4I	13		VspI	6	20 128 2027 3019 4060 6136
BsaWI	7	981 1735 2162 4423 5277 5424 6255	HincII	5	108 393 1838 2372 3306	XhoI	1	3452
BsaXI	2	303 7165	HindIII	1	3437	XmnI	2	4116 6563
Bsbl	4	864 4181 4370 7206	Hinfl	13				
BscGI	11		HphI	24				
BsGI	4	1458 4220 4514 4668	Maell	20				
BsII	2	5244 6628	MaeIII	21				
BsiEI	7	1258 3447 4987 5411 6334 6483 7380	MbolI	20				
BsII	14		MluI	4	547 1662 1680 2378			
BsmI	3	85 2922 3038	MmeI	5	3253 4490 5286 5470 7138			
BsmAI	8	433 1097 4362 4425 4861 4920 6025 6801	MnlI	32				
BsmBI	2	1097 4425	MscI	1	2356			
BsmFI	2	2266 3981	MseI	51				
BsoFI	46		MslI	13				
Bsp24I	8	2914 2946 3991 4023 5564 5596 5742 5774	MspI	24				
Bsp1286I	10	1719 2044 3434 3459 4163 4663 5389 6550 6635 7042	MspA1I	6	803 4498 4678 5413 5658 6599			
BspGI	3	1215 2299 3745	MunI	6	2843 3164 3564 3909 4470 4835			
BspLU11I	2	1418 5071	MwoI	27				
BspMI	2	1641 2371	NarI	2	4406 4673			
BsrI	20		NciI	9	1444 2246 2543 2605 2850 3509 5451 6147 6498			
BsrBI	6	3237 4528 4823 5004 6805 6969	NgoAIV	2	929 7008			
BsrDI	3	227 6025 6199	NlaIII	19				
BsrFI	6	929 4423 4615 4663 6044 7008	NlaIV	19				
			Nott	1	3444			
			NruI	2	1260 2904			

Enzymes that do not cut pBACgus-1:

AflII	ApaI	ApaBI	AscI	BaeI
BseRI	BspEI	BssHII	Bst1107I	BstEII
Bsu36I	EcoNI	EcoO109I	FseI	HpaI
KpnI	NcoI	NdeI	NheI	PacI
PfiMI	PmlI	Psp5II	PstI	PvuII
RsrII	SacII	SapI	SexAI	SfiI
SgfI	Smal	SpeI	SrfI	Sse8387I
SunI	Tth1111I	XbaI	XcmI	