

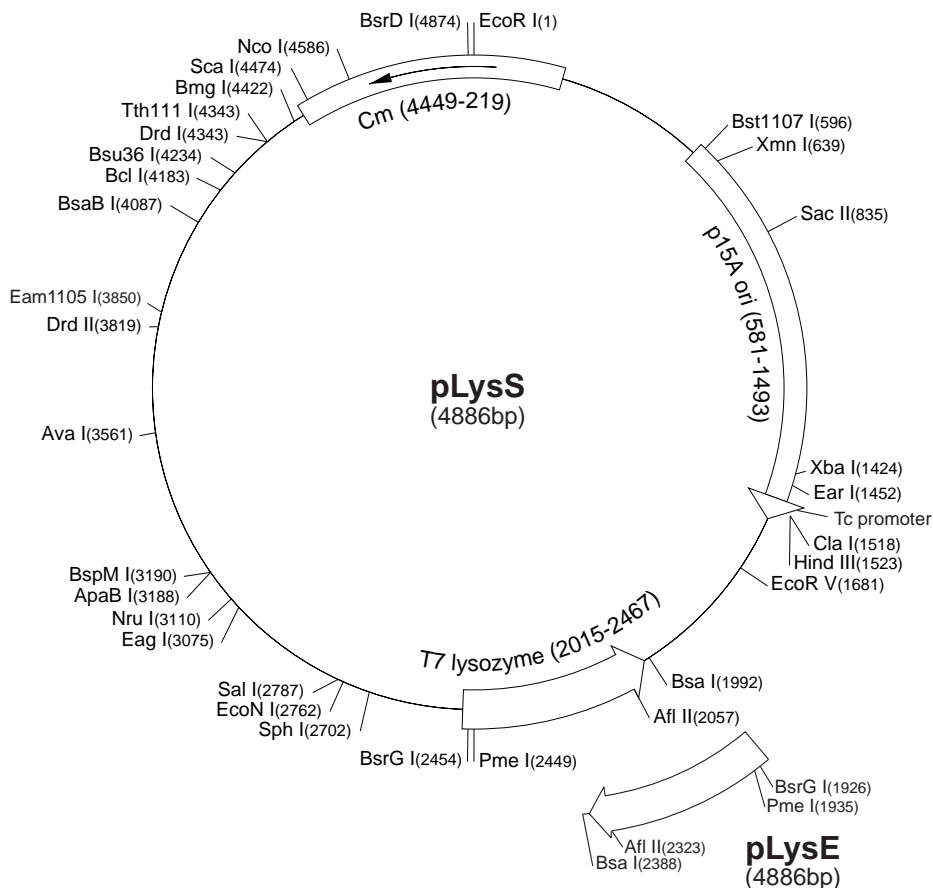
pLysS & pLysE

pLysS (Cat. No. 69659-3) and pLysE (Cat. No. 69658-3) are 4886bp plasmids constructed by insertion of the T7 lysozyme gene into the *Bam*H I site of pACYC184 (1, 2). These plasmids are not cloning vectors; they are used in λ DE3 lysogenic hosts to suppress basal expression from the T7 promoter by producing T7 lysozyme, a natural inhibitor of T7 RNA polymerase. The two plasmids differ only by the orientation of the T7 lysozyme gene. In pLysS the T7 lysozyme coding sequence is in the antisense orientation relative to the *tet* promoter, so only a small amount of T7 lysozyme is produced. In pLysE large amounts of T7 lysozyme are produced from the *tet* promoter. The construct also contains the weak T7 ϕ 3.8 promoter immediately following the lysozyme gene. The p15A origin of replication is compatible with those found in pBR322- and pUC-derived plasmids. Unique sites are shown on the circle map.

1. Studier, F.W. (1991) *J. Mol. Biol.* **219**, 37-44.
2. Chang, A.C.Y. and Cohen, S.N. (1978) *J. Bacteriol.* **134**, 1141.

pLysS & pLysE sequence landmarks

Cm gene coding seq.	4449-219
p15A origin	581-1493
T7 lysozyme coding seq. (pLysS)	2015-2467
T7 lysozyme coding seq. (pLysE)	1918-2370



pLysS Restriction Sites

Enzyme	# Sites	Locations	Enzyme	# Sites	Locations	Enzyme	# Sites	Locations		
AccI	2	595 2788	CviRI	18		RleAI	2	1908 2348		
AccIII	2	2833 4872	Ddel	11		RsaI	6	126 1659 2124 2302 2456		
AcII	57		DpnI	16				4474		
AflIII	1	2057	DraI	3	85 2449 4632	SacII	1	835		
AgeI	4	669 992 3823 4283	DrdI	1	4343	Sall	1	2787		
AluI	13		DrdII	1	3819	Sau96I	13			
AlwI	6	1864 1877 2506 2519 3241	DsaI	7	832 2016 2664 3583 4025	Sau3AI	16			
		4090			4207 4586	Scal	1	4474		
Alw21I	5	494 1774 2727 3314 3605	EaeI	8	1013 1789 2535 2667 3075	ScrFI	23			
AlwNI	3	537 1185 4165			3580 4022 4622	SfaNI	16			
ApaBI	1	3188	EagI	1	3075	SfiCI	2	1632 2269		
ApoI	3	1 4349 4361	Eam1105I	1	3850	SgrAI	2	669 2546		
AvaI	1	3561	EarI	1	1452	SphI	1	2702		
Avall	6	2505 2935 3023 3272 3575	Ecil	3	780 861 3531	SspI	2	1420 4579		
		3617	Eco47III	5	582 1728 2632 2913 4144	StyI	2	3505 4586		
BamHI	2	1869 2511	Eco57I	2	1484 3813	TaqI	14			
BanI	11		EcoNI	1	2762	TaqII	3	726 2806 4669		
BanII	2	2611 2625	EcoO109I	5	2505 2660 3575 3617 4030	TfiI	7	2368 2436 2988 3142 3440		
BbsI	4	2114 2866 3729 3960	EcoRI	1	1			3661 4538		
BbvI	16		EcoRII	12		Thal	19			
BccI	10	477 2100 2276 2596 2689	EcoRV	1	1681	TseI	16			
		3126 3215 3522 3534 4514	FauI	10	18 1668 2832 3034 3181	Tsp45I	9	409 1258 1618 1706 2027		
Bce83I	4	1158 1373 2821 2991			3376 3626 3809 3926 4460			2138 3016 3283 4256		
BceII	6	78 572 828 2746 3303	FokI	7	21 1592 1640 3136 3181	Tsp509I	16			
		4538			4109 4361	Tth111I	1	4343		
BcgI	6	2143 2177 2833 2867 3927	FspI	4	1756 1944 3494 3592	Tth111III	3	888 1491 2159		
		3961	GdiII	6	1013 1789 2535 2667 3075	UbaII	22			
BclI	1	4183			4022	VspI	2	1406 2008		
BfaI	4	584 1425 1724 3625	HaeI	7	3056 3128 3185 3582 4232	XbaI	1	1424		
BglI	2	3071 3305			4624 4711	XmnI	1	639		
BmgI	1	4422	HaeII	13		Enzymes that do not cut pLysS or pLysE:				
BpmI	4	478 2968 3522 4771	HaeIII	25		AatII	AflIII	Alw44I	ApaI	AscI
Bpu10I	4	229 2255 3717 4220	HgaI	12		AvrII	BaeI	BglII	Bpu1102I	BsaXI
BsaI	1	1992	HhaI	30		Bsbl	BspLU11I	BssHII	BstEII	BstXI
BsaAI	2	312 3785	Hin4I	6	16 406 1510 1828 3277	DraIII	FseI	HgiEII	HpaI	KpnI
BsaBI	1	4087			3849	MluI	MunI	NdeI	NotI	NsiI
BsaHI	6	2086 2229 2550 2571 2685	HincII	2	2789 3855	Pacl	PmlI	PstI	PvuI	RsrII
		3342	HindIII	1	1523	SacI	SapI	SexAI	SfiI	SgfI
BsaJI	20		HinfI	11		Smal	SnaBI	SpeI	SrfI	Sse8387I
BsaWI	11		HphI	16		SitI	SunI	Swal	XcmI	XhoI
BscGI	11		MaeII	10	311 323 2441 3037 3093					
BseRI	3	1216 1259 1899			3682 3706 3784 4627 4802					
BsgI	2	650 4050	MaeIII	16						
Bsil	2	959 2458	MbolI	13						
BsiEI	6	740 1109 1783 2792 3078	MmeI	5	279 1129 1168 1716 1803					
		4342	MnlI	34						
BsII	22		MscI	2	3582 4624					
BsmI	3	14 3495 4493	MseI	16						
BsmAI	5	330 1029 1992 2311 4663	Msil	4	289 3167 3598 4072					
BsmBI	3	330 2311 4663	MspI	36						
BsmFI	8	385 505 2518 2688 3009	MspA1I	9	105 517 834 1006 1111					
		3234 3762 4001			1981 3277 3906 4547					
BsoFI	38		MwoI	39						
Bsp24I	6	1239 1271 2383 2415 2517	NarI	5	2086 2550 2571 2685 3342					
		2549	NciI	11						
Bsp1286I	8	494 1774 2611 2625 2727	NcoI	1	4586					
		3314 3605 4424	NgoAIV	5	2537 2905 3065 3419 3999					
BspEI	2	5 4079	NheI	2	583 1723					
BspGI	3	1076 3195 3272	NlaIII	24						
BspMI	1	3190	NlaIV	28						
BsrI	17		NruI	1	3110					
BsrBI	2	757 3866	Nspl	2	1161 2702					
BsrDI	1	4874	NspV	2	1319 4359					
BsrFI	12		Pfi1108I	2	2894 3988					
BsrGI	1	2454	PfIMI	4	343 3457 3506 4662					
Bst1107I	1	596	PleI	4	718 1148 2776 3859					
BstYI	3	1869 2511 4082	PmeI	1	2449					
Bsu36I	1	4234	PshAI	2	2852 3946					
Cac8I	33		Psp5II	3	2505 3575 3617					
CjeI	22		Psp1406I	2	3037 4802					
Clal	1	1518	PvuII	2	105 517					
CviJI	84		RcaI	2	2094 2625					