

pET-30a-c(+) Vectors

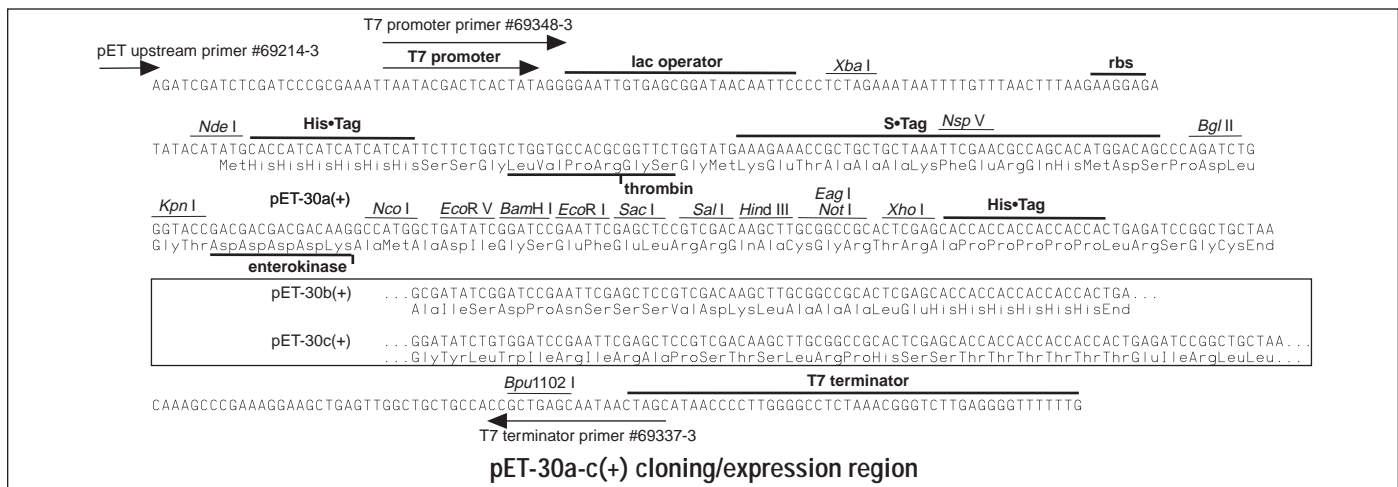
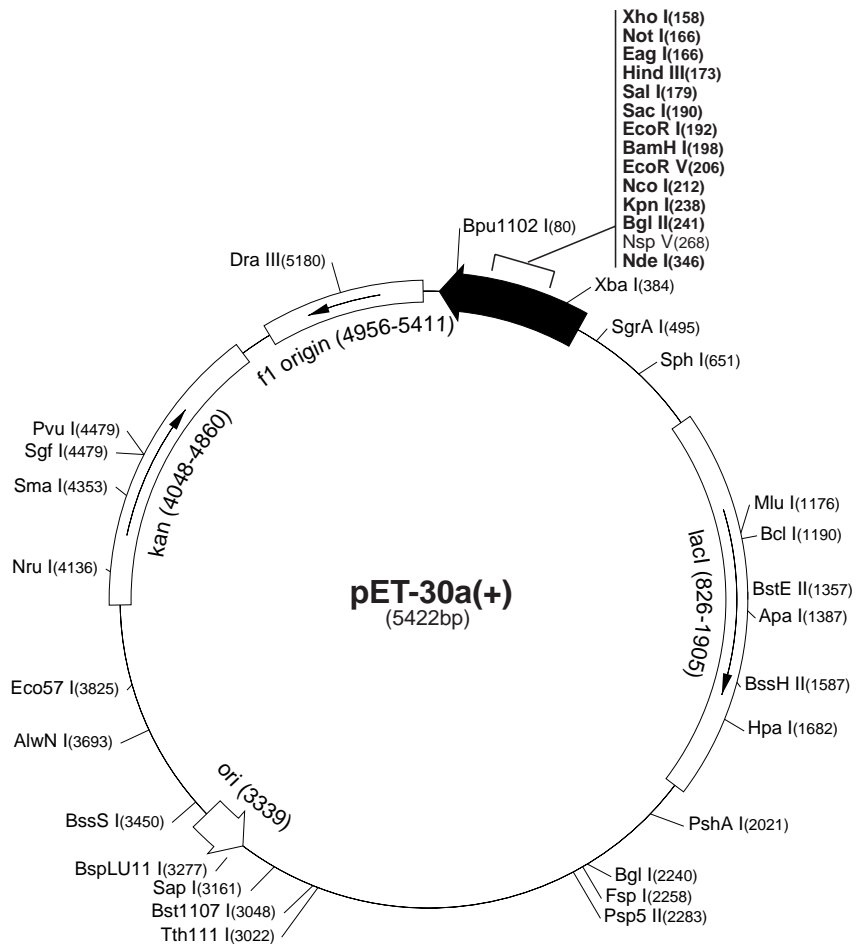
	Cat. No.
pET-30a DNA	69909-3
pET-30b DNA	69910-3
pET-30c DNA	69911-3

The pET-30a-c(+) vectors carry an N-terminal His•Tag[®]/thrombin/S•Tag[™]/enterokinase configuration plus an optional C-terminal His•Tag sequence. Unique sites are shown on the circle map. Note that the sequence is numbered by the pBR322 convention, so the T7 expression region is reversed on the circular map. The cloning/expression region of the coding strand transcribed by T7 RNA polymerase 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. Therefore, single-stranded sequencing should be performed using the T7 terminator primer (Cat. No. 69337-3).

pET-30a(+) sequence landmarks

T7 promoter	419-435
T7 transcription start	418
His•Tag coding sequence	327-344
S•Tag coding sequence	249-293
Multiple cloning sites (<i>Nco</i> I - <i>Xho</i> I)	158-217
His•Tag coding sequence	140-157
T7 terminator	26-72
<i>lac</i> I coding sequence	826-1905
pBR322 origin	3339
Kan coding sequence	4048-4860
f1 origin	4956-5411

The maps for pET-30b(+) and pET-30c(+) are the same as pET-30a(+) (shown) with the following exceptions: pET-30b(+) is a 5421bp plasmid; subtract 1bp from each site beyond *Bam*H I at 198. pET-30c(+) is a 5423bp plasmid; add 1bp to each site beyond *Bam*H I at 198.



pET-30a(+) Restriction Sites

Enzyme	# Sites	Locations	Enzyme	# Sites	Locations	Enzyme	# Sites	Locations
AccI	2	180 3047	Bst1107I	1	3048	NspI	4	651 2622 2914 3281
AccIII	7	943 1671 2002 2786 2927	BstEII	1	1357	NspV	1	268
			BstXI	3	978 1107 1230	Pfi1108I	1	2063
AcI	75		BstYI	9	132 198 241 740 1952	PfiMI	3	260 758 4742
AflIII	2	1176 3277			2469 3918 3929 4728	PleI	9	433 725 812 1608 3171
AluI	22		Cac8I	40				3656 4711 5115 5123
AlwI	13		CjeI	24		PshAI	1	2021
Alw21I	7	159 190 676 1160 2271	CjePI	18		Psp5II	1	2283
			Clal	2	453 4170	Psp1406I	4	838 2206 2602 4965
Alw44I	3	1156 3091 3591	CviJI	85		PvuI	1	4479
AlwNI	1	3693	CviRI	31		PvuII	3	1776 1869 2868
Apal	1	1387	Ddel	11		Rcal	3	574 3997 4872
ApaBI	1	860	Dpnl	23		Rsal	4	236 1323 3083 4314
Apol	7	192 270 1451 4092 4276	DrallI	1	5180	SacI	1	190
			DrdI	3	2970 3385 5135	Sall	1	179
Aval	2	158 4351	DrdII	2	899 5185	SapI	1	3161
Avall	5	1728 2104 2192 2283 2562	Dsal	3	212 613 2249	Sau96I	14	
BamHI	1	198	EaeI	4	166 484 616 1850	Sau3AI	23	
BanI	10	234 310 498 519 633	EagI	1	166	ScrFI	21	
			EarI	3	794 3161 4292	SfaNI	23	
BanII	6	1096 1815 1945 2071 5217	Ecil	3	953 3351 3497	Sfcl	4	418 3542 3733 5399
			Eco47III	3	581 2082 2531	Sgfl	1	4479
BbsI	4	1322 1661 2035 2395	Eco57I	1	3825	SgrAI	1	495
BbvI	25		EcoNI	2	711 4391	SmaI	1	4353
BccI	14		EcoO109I	3	53 609 2283	SphI	1	651
Bce83I	6	21 1990 2160 3368 3666	EcoRI	1	192	SspI	2	4404 4972
			EcoRII	9	899 1214 1754 1811 3303	StyI	2	57 212
					3424 3437 4367 4724	TaqI	17	
Bcefl	6	695 1036 1663 3779 4798	EcoRV	1	206	TaqII	6	1084 1302 1975 3179 4733
			FauI	17				5084
BcgI	8	160 194 1468 1502 2002	FokI	9	1222 1231 2496 2558 2636	TfiI	9	1855 2157 2327 2831 3252
					2822 2963 4117 4723			4390 4446 4618 4709
BclI	1	1190	Fspl	1	2258	Thal	36	
Bfal	6	70 385 2291 3772 4079	GdIII	4	166 484 616 1850	Tsel	25	
			HaeI	7	217 904 2225 3292 3303	Tsp45I	7	1357 2185 2716 2929 3024
BglI	1	5331			3755 4566			4626 5353
BglII	1	2240	HaeII	14		Tsp509I	21	
BmgI	1	241	HaeIII	24		Tth111I	1	3022
BpmI	4	1385	Hgal	11		Tth111II	8	1015 1708 2738 3867 3874
Bpu10I	2	1014 1503 2137 2804	HgiEI	2	774 3863			3906 4315 4442
Bpu1102I	1	2383 4496	HhaI	46		UbaII	18	
BsaAI	2	80	Hin4I	4	203 1075 4165 4707	VspI	5	433 1861 1920 4678 4867
BsaBI	3	3029 5180	HincII	2	181 1682	XbaI	1	384
BsaBI	3	449 459 2474	HindIII	1	173	XcmI	3	1032 1548 1566
BsaHI	5	499 520 634 1133 1816	Hinfl	18		XhoI	1	158
BsaJI	10	57 212 613 619 1811	HpaI	1	1682	XmnI	2	2835 4868
			HphI	16				
BsaWI	7	2249 3437 4350 4351 4752	KpnI	1	238			
			MaeI	14				
BsaXI	2	2 1495 1998 2466 3483	MaeII	16				
			MbolI	13				
BsbI	2	3630 4614	MluI	1	1176			
BscGI	11	1835 5128	MmeI	7	3492 3676 4121 4315 4677			
BsgI	3	2993 5087			4686 5157			
Bsil	1	1027 1227 2437	MnlI	25				
BsIEI	5	3450	MseI	25				
BsII	26	169 1961 3193 3617 4479	Msil	6	1228 1516 1546 2264 2459			
BsmI	2	4363 4440			2850			
BsmAI	6	873 1278 1404 1791 2918	MspI	29				
			MspAII	9	84 283 1206 1776 1869			
BsmBI	3	4495			2868 2987 3619 3864			
BsmFI	4	1791 2918 4495	MwoI	39				
BsoFI	43	637 2178 2548 5395	NarI	4	499 520 634 1816			
Bsp24I	10	466 498 1017 1049 1319	NciI	12				
			NcoI	1	212			
Bsp1286I	12	1351 3770 3802 3948 3980	NdeI	1	346			
BspEI	2	2 2466	NgoAIV	4	486 2074 2234 5281			
BspGI	1	2803	NlaIII	26				
BspLU11I	1	3277	NlaIV	23				
BsrI	21		NottI	1	166			
BsrBI	4	405 3210 4878 5324	Nrul	1	4136			
BsrDI	2	1223 1589	Nsil	2	4329 4595			
BsrFI	7	486 495 862 2074 2234						
BssHII	1	4433 5281						
		1587						

Enzymes that do not cut pET-30a(+):

AatII	AflII	AgeI	AscI	AvrII
BaeI	BsaI	BseRI	BspMI	BsrGI
Bsu36I	DraI	Eam1105I	FseI	MscI
MunI	NheI	PacI	PmeI	PmlI
PstI	RleAI	RsrII	SacII	Scal
SexAI	SfiI	SnaBI	SpeI	SrfI
Sse8387I	StuI	SunI	Swal	