

pET-9a-d Vectors

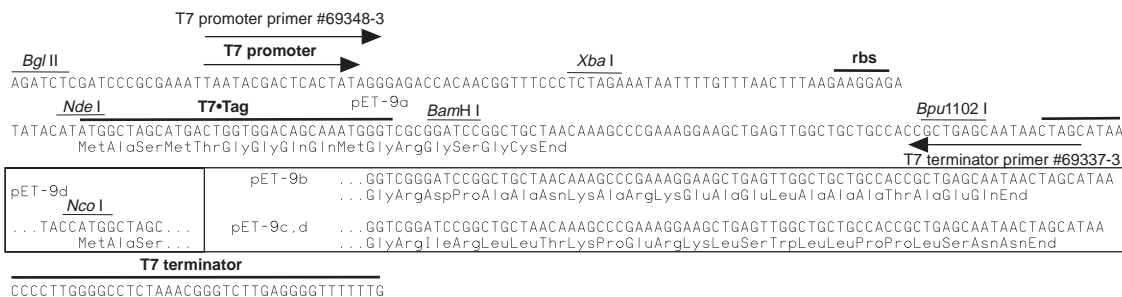
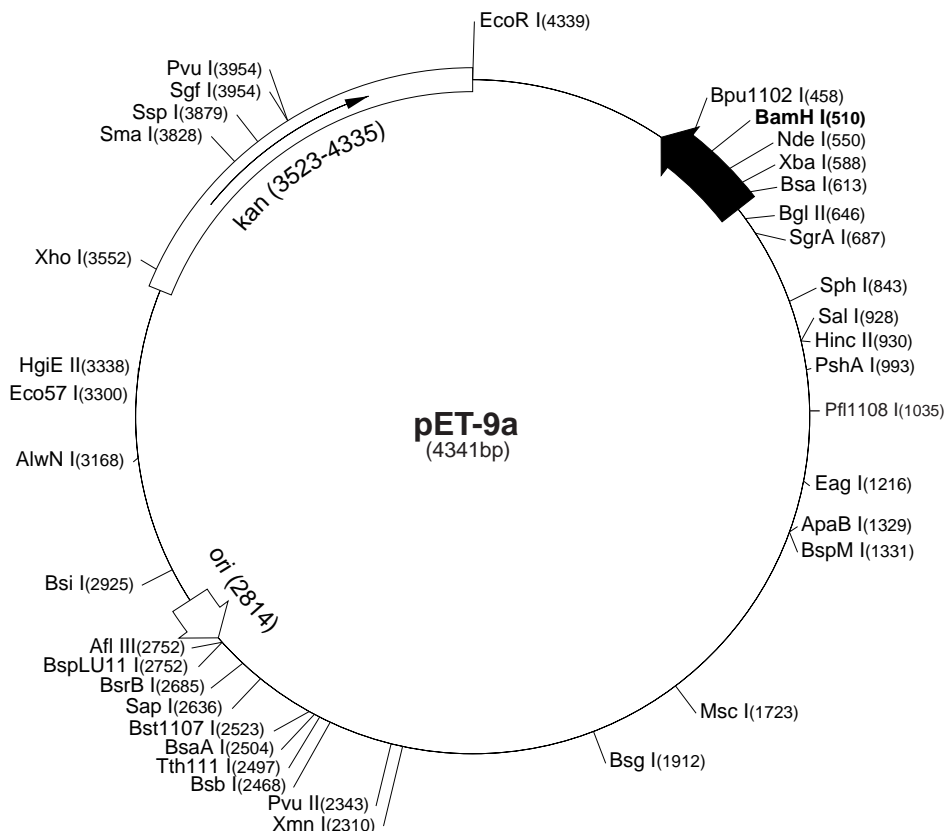
	Cat. No.
pET-9a DNA	69431-3
pET-9b DNA	69432-3
pET-9c DNA	69433-3
pET-9d DNA	69434-3

The pET-9a-d(+) vectors carry an N-terminal T7•Tag[®] sequence and *Bam*H I cloning site. These vectors are the precursors to many pET family vectors. 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.

pET-9a sequence landmarks

T7 promoter	615-631
T7 transcription start	614
T7•Tag coding sequence	519-551
T7 terminator	404-450
pBR322 origin	2814
kan coding sequence	3523-4335

The maps for pET-9b, pET-9c and pET-9d are the same as pET-9a (shown) with the following exceptions: pET-9b is a 4340bp plasmid; subtract 1bp from each site beyond *Bam*H I at 510. pET-9c is a 4339bp plasmid; subtract 2bp from each site beyond *Bam*H I at 510. pET-9d is a 4338bp plasmid; the *Bam*H I site is in the same reading frame as in pET-9c. An *Nco* I site is substituted for the *Nde* I site with a net 1bp deletion at position 550 of pET-9c. As a result, *Nco* I cuts pET-9d at 546. For the rest of the sites, subtract 3bp from each site beyond position 551 in pET-9a. *Nde* I does not cut pET-9d.



pET-9a-d cloning/expression region

pET-9a Restriction Sites

Enzyme	# Sites	Locations				
AccI	2	929	2522			
AccIII	4	974	2261	2402	2704	
AcII	61					
AfiIII	1	2752				
AluI	16					
AlwI	11					
Alw21I	6	280	868	1455	1746	2570
		3070				
Alw44I	2	2566	3066			
AlwNI	1	3168				
ApaBI	1	1329				
ApoI	3	3567	3751	4339		
AvaI	3	1702	3552	3826		
Avall	6	1076	1164	1413	1716	1758
		2037				
BamHI	1	510				
BanI	8	76	119	690	711	825
		1043	1482	1566		
BanII	3	752	766	3609		
BbsI	2	1007	1870			
BbvI	21					
BccI	9	737	830	1267	1356	1663
		1675	3728	3771	4212	
Bce83I	6	399	962	1132	2843	3141
		3382				
BceII	4	887	1444	3254	4273	
Bcgl	6	506	540	974	1008	2329
		2363				
Bfal	6	230	448	544	589	1766
		3247				
BglI	2	1212	1446			
BglII	1	646				
BpmI	3	1109	1663	2279		
Bpu10I	2	1858	3971			
Bpu1102I	1	458				
BsaI	1	613				
BsaAI	1	2504				
BsaBI	3	645	651	1949		
BsaHI	4	691	712	826	1483	
BsaJI	12					
BsaWI	6	380	970	1941	2958	3105
		4089				
Bsbl	1	2468				
BscGI	11					
BsgrI	1	1912				
Bsil	1	2925				
BsiEI	6	289	933	1219	2668	3092
		3954				
BsII	24					
BsmI	3	1636	3838	3915		
BsmAI	3	613	2393	3970		
BsmBI	2	2393	3970			
BsmFI	4	829	1150	1375	2023	
BsoFI	40					
Bsp24I	8	513	545	658	690	3245
		3277	3423	3455		
Bsp1286I	9	280	752	766	868	1455
		1746	2570	3070	3609	
BspEI	2	380	1941			
BspGI	3	1336	1413	2278		
BspLU11I	1	2752				
BspMI	1	1331				
BsrI	16					
BsrBI	1	2685				
BsrFI	7	160	678	687	1046	1206
		1560	3908			
Bst1107I	1	2523				
BstYI	6	510	646	1944	3393	3404
		4203				
Cac8I	33					
CjeI	16					
CjePI	20					

Enzyme	# Sites	Locations				
Clal	2	24	3645			
CviJI	76					
CviRI	19					
Ddel	9	458	479	1858	2020	2560
		3027	3436	3971	4335	
Dpnl	19					
DrdI	2	2445	2860			
Dsal	2	805	1724			
EaeI	5	295	676	808	1216	1721
EagI	1	1216				
EarI	2	2636	3767			
Ecil	3	1672	2826	2972		
Eco47III	4	234	773	1054	2006	
Eco57I	1	3300				
EcoNI	2	903	3866			
EcoO109I	4	431	801	1716	1758	
EcoRI	1	4339				
EcoRII	8	129	1335	1718	2778	2899
		2912	3842	4199		
EcoRV	2	187	378			
FauI	11					
FokI	11					
FspI	3	262	1635	1733		
GdIII	4	295	676	808	1216	
HaeI	8	1197	1269	1326	1723	2767
		2778	3230	4041		
HaeII	11					
HaeIII	21					
HgaI	10	676	915	1230	1262	1506
		1656	2288	2445	2863	3441
HgiEII	1	3338				
HhaI	31					
HinCI	5	16	334	1418	3640	4182
HincII	1	930				
HindIII	2	29	4072			
HinfI	15					
HphI	12					
Maell	8	1178	1234	1823	1847	2077
		2503	3455	3544		
MaellI	15					
MbolI	8	753	1007	1278	1870	2623
		3414	3754	3865		
Mmel	8	222	309	2967	3151	3596
		3790	4152	4161		
MnlI	29					
MscI	1	1723				
MseI	13					
MslI	4	1308	1739	1934	2325	
MspI	26					
MspAII	6	462	1418	2343	2462	3094
		3339				
MwoI	38					
NarI	4	691	712	826	1483	
NciI	10	171	812	1536	1762	2090
		2396	2431	3132	3827	3828
NdeI	1	550				
NgoAIV	4	678	1046	1206	1560	
NheI	2	229	543			
NlaIII	25					
NlaIV	20					
NruI	2	1251	3611			
Nsil	2	3804	4070			
NspI	4	843	2097	2389	2756	
Pfi1108I	1	1035				
PfiMI	3	1598	1647	4217		
PleI	5	629	917	2646	3131	4186
PshAI	1	993				
Psp5II	2	1716	1758			
Psp1406I	2	1178	2077			
PvuI	1	3954				
PvuII	1	2343				
RcaI	2	766	3472			

Enzyme	# Sites	Locations				
RsaI	3	165	2558	3789		
Sall	1	928				
SapI	1	2636				
Sau96I	11					
Sau3AI	19					
ScrFI	18					
SfaNI	25					
Sfcl	4	138	614	3017	3208	
Sgfl	1	3954				
SgrAI	1	687				
Smal	1	3828				
SphI	1	843				
Sspl	1	3879				
Styl	2	435	1646			
TaqI	12					
TaqII	3	947	2654	4208		
TfiI	10	1129	1283	1581	1802	2306
		2727	3865	3921	4093	4184
Thal	25					
TseI	21					
Tsp45I	8	124	212	1157	1424	2191
		2404	2499	4101		
Tsp509I	12					
Tth111I	1	2497				
Tth111II	7	2213	3342	3349	3381	3790
		3917	4338			
UbaJI	19					
VspI	2	629	4153			
XbaI	1	588				
XhoI	1	3552				
XmnI	1	2310				

Enzymes that do not cut pET-9a:

AatII	AfilI	AgeI	Apal	AscI
AvrII	BaeI	BclI	BmgI	BsaXI
BseRI	BsrDI	BsrGI	BssHII	BstEII
BstXI	Bsu36I	DraI	DraIII	DrdII
Eam1105I	FseI	HpaI	KpnI	MluI
MunI	NcoI	NotI	NspV	Pacl
PmeI	PmlI	PstI	RleAI	RsrII
SacI	SacII	Scal	SexAI	SfiI
SnaBI	SpeI	SrfI	Sse8387I	StuI
SunI	Swal	XcmI		