

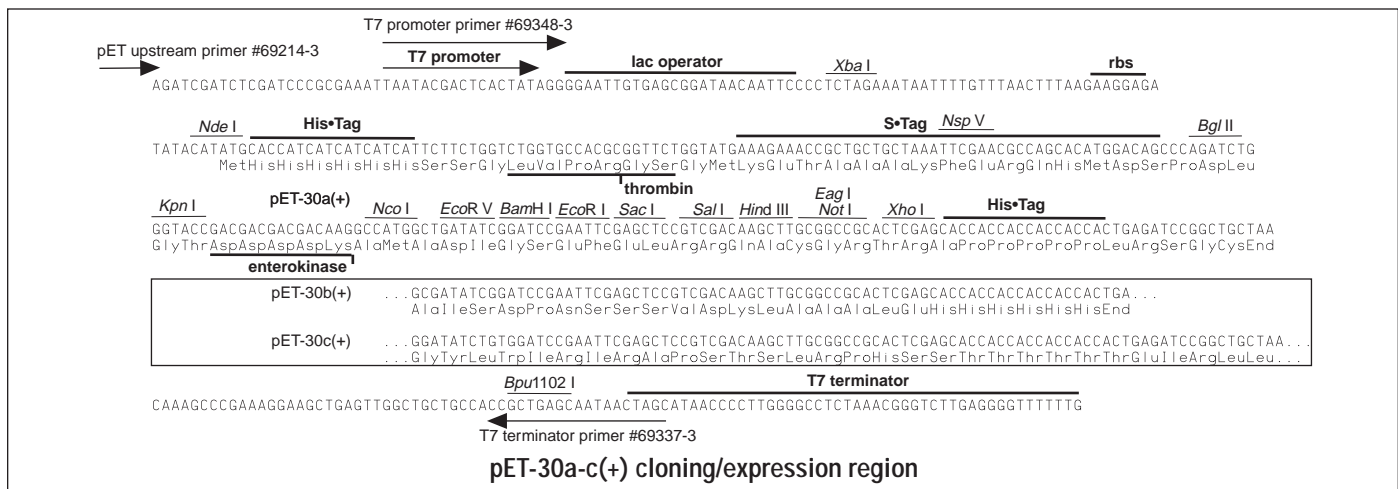
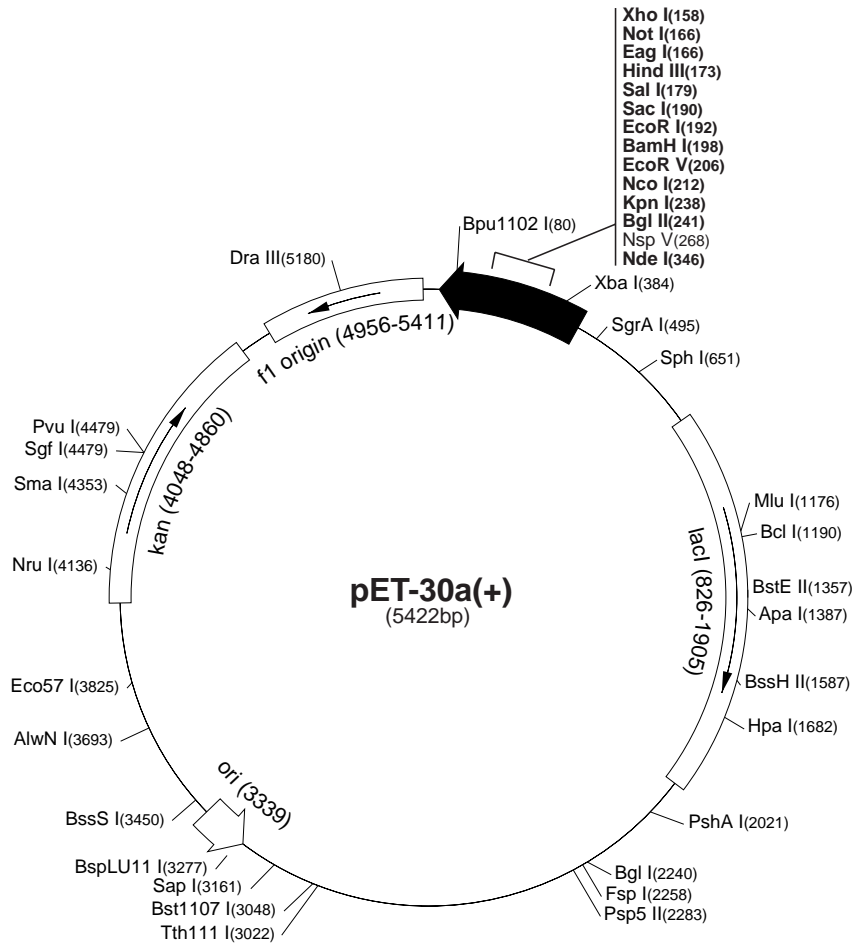
# pET-30a-c(+) Vectors

	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<sup>®</sup>/thrombin/S•Tag<sup>™</sup>/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
AccI	2	180 3047
AccIII	7	943 1671 2002 2786 2927 3229 5020
Acil	75	
AflIII	2	1176 3277
AluI	22	
AlwI	13	
Alw21I	7	159 190 676 1160 2271 3095 3595
Alw44I	3	1156 3091 3591
AlwNI	1	3693
ApaI	1	1387
ApaBI	1	860
ApoI	7	192 270 1451 4092 4276 4982 4993
AvaI	2	158 4351
AvaII	5	1728 2104 2192 2283 2562
BamHI	1	198
BanI	10	234 310 498 519 633 1096 1815 1945 2071 5217
BanII	6	190 560 574 1387 4134 5255
BbsI	4	1322 1661 2035 2395
BbvI	25	
BccI	14	
Bce83I	6	21 1990 2160 3368 3666 3907
BceII	6	695 1036 1663 3779 4798 5206
BcgI	8	160 194 1468 1502 2002 2036 2854 2888
BclI	1	1190
Bfal	6	70 385 2291 3772 4079 5331
BglI	1	2240
BglII	1	241
BmgI	1	1385
BpmI	4	1014 1503 2137 2804
Bpu10I	2	2383 4496
Bpu1102I	1	80
BsaAI	2	3029 5180
BsaBI	3	449 459 2474
BsaHI	5	499 520 634 1133 1816
BsaJI	10	57 212 613 619 1811 2249 3437 4350 4351 4752
BsaWI	7	2 1495 1998 2466 3483 3630 4614
BsaXI	2	1835 5128
Bsbl	2	2993 5087
BscGI	11	
BsGI	3	1027 1227 2437
Bsil	1	3450
BsIEI	5	169 1961 3193 3617 4479
BsII	26	
BsmI	2	4363 4440
BsmAI	6	873 1278 1404 1791 2918 4495
BsmBI	3	1791 2918 4495
BsmFI	4	637 2178 2548 5395
BsoFI	43	
Bsp24I	10	466 498 1017 1049 1319 1351 3770 3802 3948 3980
Bsp1286I	12	
BspEI	2	2 2466
BspGI	1	2803
BspLU11I	1	3277
BsrI	21	
BsrBI	4	405 3210 4878 5324
BsrDI	2	1223 1589
BsrFI	7	486 495 862 2074 2234 4433 5281
BssHII	1	1587

Enzyme	# Sites	Locations
Bst1107I	1	3048
BstEII	1	1357
BstXI	3	978 1107 1230
BstYI	9	132 198 241 740 1952 2469 3918 3929 4728
Cac8I	40	
CjeI	24	
CjePI	18	
Clal	2	453 4170
CviJI	85	
CviRI	31	
Ddel	11	
Dpnl	23	
DrallI	1	5180
DrdI	3	2970 3385 5135
DrdII	2	899 5185
Dsal	3	212 613 2249
EaeI	4	166 484 616 1850
EagI	1	166
EarI	3	794 3161 4292
Ecil	3	953 3351 3497
Eco47III	3	581 2082 2531
Eco57I	1	3825
EcoNI	2	711 4391
EcoO109I	3	53 609 2283
EcoRI	1	192
EcoRII	9	899 1214 1754 1811 3303 3424 3437 4367 4724
EcoRV	1	206
FauI	17	
FokI	9	1222 1231 2496 2558 2636 2822 2963 4117 4723
Fspl	1	2258
GdIII	4	166 484 616 1850
HaeI	7	217 904 2225 3292 3303 3755 4566
HaeII	14	
HaeIII	24	
Hgal	11	
HgiEII	2	774 3863
HhaI	46	
Hin4I	4	203 1075 4165 4707
HincII	2	181 1682
HindIII	1	173
Hinfl	18	
HpaI	1	1682
HphI	16	
KpnI	1	238
MaeI	14	
MaeIII	16	
MbolI	13	
MluI	1	1176
MmeI	7	3492 3676 4121 4315 4677 4686 5157
MnlI	25	
MseI	25	
Msil	6	1228 1516 1546 2264 2459 2850
MspI	29	
MspA1I	9	84 283 1206 1776 1869 2868 2987 3619 3864
MwoI	39	
NarI	4	499 520 634 1816
NciI	12	
NcoI	1	212
NdeI	1	346
NgoAIV	4	486 2074 2234 5281
NlaIII	26	
NlaIV	23	
NotI	1	166
NruI	1	4136
Nsil	2	4329 4595

Enzyme	# Sites	Locations
NspI	4	651 2622 2914 3281
NspV	1	268
Pfi1108I	1	2063
PfiMI	3	260 758 4742
PleI	9	433 725 812 1608 3171 3656 4711 5115 5123
PshAI	1	2021
Psp5II	1	2283
Psp1406I	4	838 2206 2602 4965
PvuI	1	4479
PvuII	3	1776 1869 2868
RcaI	3	574 3997 4872
RsaI	4	236 1323 3083 4314
SacI	1	190
SalI	1	179
SapI	1	3161
Sau96I	14	
Sau3AI	23	
ScrFI	21	
SfaNI	23	
SfcI	4	418 3542 3733 5399
Sgfl	1	4479
SgrAI	1	495
SmaI	1	4353
SphI	1	651
Sspl	2	4404 4972
StyI	2	57 212
TaqI	17	
TaqII	6	1084 1302 1975 3179 4733 5084
TfiI	9	1855 2157 2327 2831 3252 4390 4446 4618 4709
Thal	36	
TseI	25	
Tsp45I	7	1357 2185 2716 2929 3024 4626 5353
Tsp509I	21	
Tth111I	1	3022
Tth111II	8	1015 1708 2738 3867 3874 3906 4315 4442
UbaII	18	
VspI	5	433 1861 1920 4678 4867
XbaI	1	384
XcmI	3	1032 1548 1566
XhoI	1	158
XmnI	2	2835 4868

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	