pET-15b Vector

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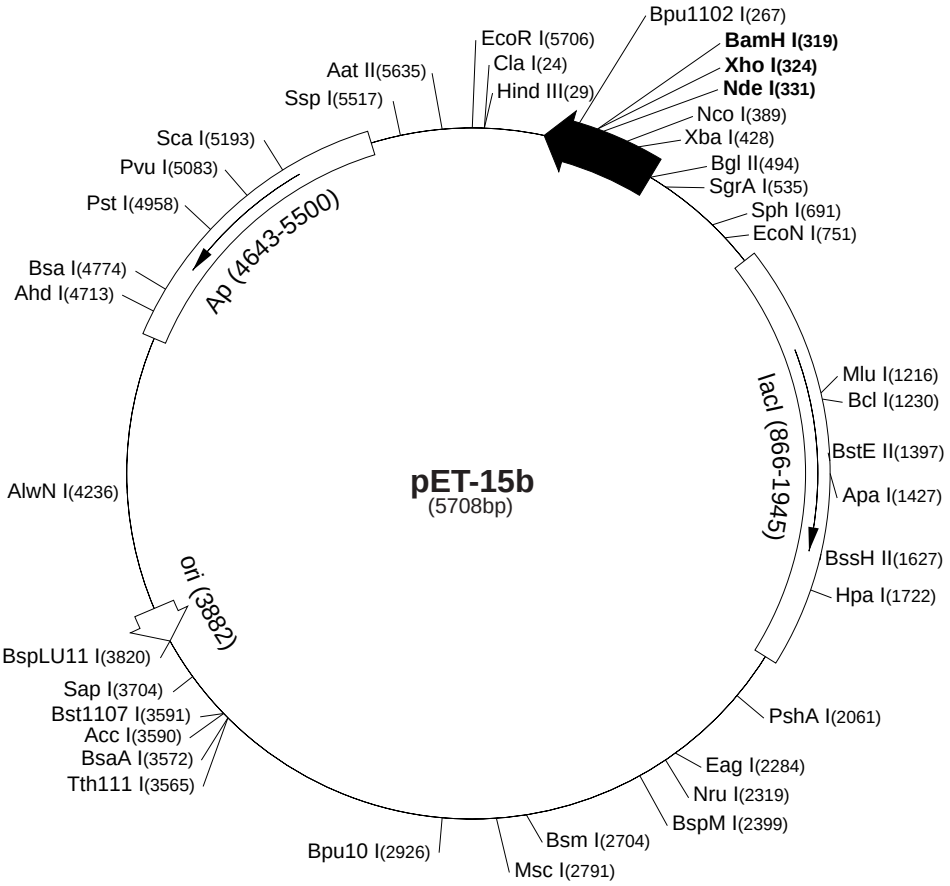
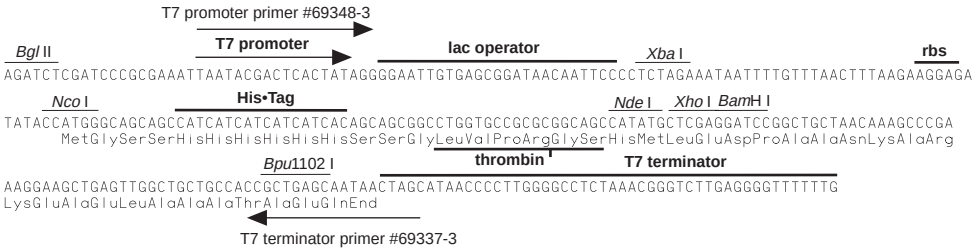
The pET-15b vector (Cat. No. 69661-3) carries an N-terminal His•Tag® sequence followed by a thrombin site and three cloning sites. Unique sites are shown on the circle map. Note that the sequence is numbered by the pBR322 convention, so the T7 expression region is reversed on the circular map. The cloning/expression region of the coding strand transcribed by T7 RNA polymerase is shown below.

pET-15b sequence landmarks

T7 promoter	453-469
T7 transcription start	452
His•Tag coding sequence	362-380
Multiple cloning sites	
(*Nde* I - *Bam*H I)	319-335
T7 terminator	213-259
lacI coding sequence	(866-1945)
pBR322 origin	3882
bla coding sequence	4643-5500





pET-15b cloning/expression region

pET-15b Restriction Sites

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Enzyme	# Sites	Locations
AatII	1	5635
AccI	1	3590
AceIII	7	983 1711 2042 3329 3470 3772 5012
AciI	91	
AflIII	2	1216 3820
AluI	24	
AlwI	16	
Alw21I	8	716 1200 2523 2814 3638 4138 5299 5384
Alw44I	4	1196 3634 4134 5380
AlwNI	1	4236
ApaI	1	1427
ApaBI	2	900 2397
ApoI	2	1491 5706
AvaI	2	324 2770
AvaII	9	1768 2144 2232 2481 2784 2826 3105 4851 5073
BamHI	1	319
BanI	13	
BanII	3	600 614 1427
BbsI	5	1362 1701 2075 2938 5691
BbvI	31	
BccI	16	
Bce83I	7	208 2030 2200 3911 4209 4450 5318
BcefI	5	735 1076 1703 2512 4322
BcgI	8	1508 1542 2042 2076 3397 3431 5218 5252
BclI	1	1230
BfaI	6	257 429 2834 4315 4568 4903
BglI	3	2280 2514 4833
BglII	1	494
BmgI	1	1425
BpmI	6	1054 1543 2177 2731 3347 4783
Bpu10I	1	2926
Bpu1102I	1	267
BsaI	1	4774
BsaAI	1	3572
BsaBI	3	493 499 3017
BsaHI	8	539 560 674 1173 1856 2551 5250 5632
BsaJI	11	
BsaWI	7	189 1535 2038 3009 4026 4173 5004
BsaXI	1	1875
BsbI	2	3536 5256
BscGI	13	
BsgI	3	1067 1267 2980
BsiI	3	3993 5377 5684
BsiEI	6	2001 2287 3736 4160 5083 5232
BsII	22	
BsmI	1	2704
BsmAI	7	913 1318 1444 1831 3461 4774 5550
BsmBI	2	1831 3461
BsmFI	4	677 2218 2443 3091
BsoFI	57	
Bsp24I	12	
Bsp1286I	11	
BspEI	2	189 3009
BspGI	3	2404 2481 3346
BspLU11I	1	3820
BspMI	1	2399
BsrI	25	
BsrBI	3	449 3753 5554
BsrDI	4	1263 1629 4774 4948
BsrFI	8	160 526 535 902 2114 2274 2628 4793

Enzyme	# Sites	Locations
BssHII	1	1627
Bst1107I	1	3591
BstEII	1	1397
BstXI	3	1018 1147 1270
BstYI	11	
Cac8I	41	
CjeI	25	
CjePI	26	
ClaI	1	24
CviJI	97	
CviRI	26	
DdeI	11	
DpnI	29	
DraI	3	4579 4598 5290
DrdI	2	3513 3928
DrdII	1	939
DsaI	3	389 653 2792
EaeI	6	524 656 1890 2284 2789 5101
EagI	1	2284
Eam1105I	1	4713
EarI	3	834 3704 5508
EciI	5	993 2740 3894 4040 4868
Eco47III	3	621 2122 3074
Eco57I	2	4368 5380
EcoNI	1	751
EcoO109I	5	240 649 2784 2826 5689
EcoRI	1	5706
EcoRII	11	
EcoRV	2	187 1666
FauI	18	
FokI	14	
FspI	3	2703 2801 4935
GdiII	5	524 656 1890 2284 5101
HaeI	8	944 2265 2337 2394 2791 3835 3846 4298
HaeII	13	
HaeIII	28	
HgaI	15	
HgiEII	2	814 4406
HhaI	45	
Hin4I	5	16 1115 2486 4712 4786
HincII	2	1722 5254
HindIII	1	29
HinfI	14	
HpaI	1	1722
HphI	17	
MaeII	12	
MaeIII	18	
MboII	15	
MluI	1	1216
MmeI	2	4035 4219
MnlI	34	
MscI	1	2791
MseI	24	
MslI	10	1268 1556 1586 2376 2807 3002 3393 4965 5124 5483
MspI	35	
MspA1I	11	
MwoI	44	
NarI	5	539 560 674 1856 2551
NciI	14	
NcoI	1	389
NdeI	1	331
NgoAIV	4	526 2114 2274 2628
NlaIII	31	
NlaIV	29	
NruI	1	2319
NspI	4	691 3165 3457 3824
Pfl1108I	2	2103 4731
PflMI	3	798 2666 2715

Enzyme	# Sites	Locations
PleI	7	477 765 852 1648 3714 4199 4702
PshAI	1	2061
Psp5II	2	2784 2826
Psp1406I	5	878 2246 3145 4939 5312
PstI	1	4958
PvuI	1	5083
PvuII	3	1816 1909 3411
RcaI	4	614 4540 5548 5653
RsaI	4	165 1363 3626 5193
SapI	1	3704
Sau96I	21	
Sau3AI	29	
ScaI	1	5193
ScrFI	25	
SfaNI	24	
SfcI	5	138 462 4085 4276 4954
SgrAI	1	535
SphI	1	691
SspI	1	5517
StyI	3	244 389 2714
TaqI	13	
TaqII	8	1124 1342 2015 3722 5061 5246 5399 5416
TfiI	7	1895 2197 2351 2649 2870 3374 3795
ThaI	41	
TseI	31	
Tsp45I	9	124 1397 2225 2492 3259 3472 3567 4969 5180
Tsp509I	16	
Tth111I	1	3565
Tth111II	7	1055 1748 3281 4410 4417 4449 5705
UbaJI	26	
VspI	4	477 1901 1960 4885
XbaI	1	428
XcmI	3	1072 1588 1606
XhoI	1	324
XmnI	2	3378 5312

Enzymes that do not cut pET-15b:

AflII	AgeI	AscI	AvrII	BaeI
BseRI	BsrGI	Bsu36I	DraIII	FseI
KpnI	MunI	NheI	NotI	NsiI
NspV	PacI	PmeI	PmlI	RleAI
RsrII	SacI	SacII	SalI	SexAI
SfiI	SgfI	SmaI	SnaBI	SpeI
SrfI	Sse8387I	StuI	SunI	SwaI