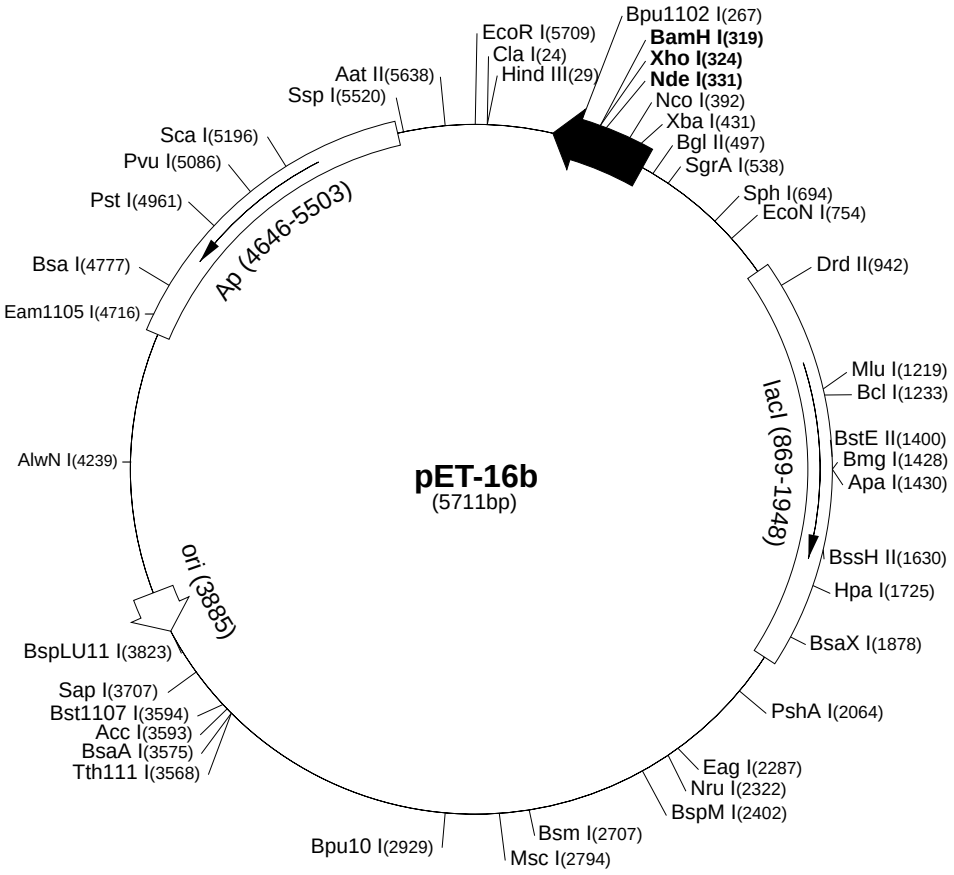
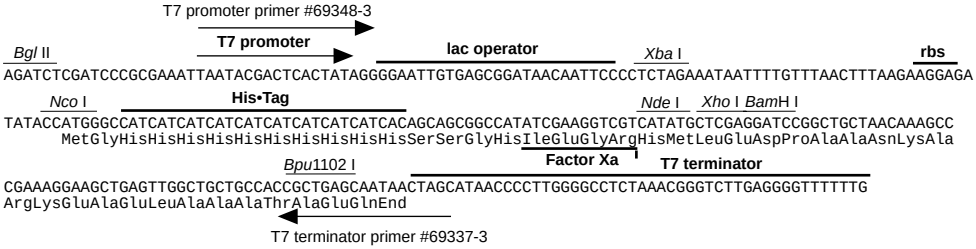
pET-16b Vector

The pET-16b vector (Cat. No. 69662-3) carries an N-terminal His•Tag® sequence followed by a Factor Xa 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-16b sequence landmarks

T7 promoter	466-482
T7 transcription start	465
His•Tag coding sequence	360-389
Multiple cloning sites	
(*Nde* I -*Bam*H I)	319-335
T7 terminator	213-259
lacI coding sequence	869-1948
pBR322 origin	3885
bla coding sequence	4646-5503





pET-16b cloning/expression region

pET-16b Restriction Sites

TB046 2/00

Enzyme	# Sites	Locations
AatII	1	5638
AccI	1	3593
AceIII	7	986 1714 2045 3332 3473 3775 5015
AciI	89	
AflIII	2	1219 3823
AluI	24	
AlwI	16	
Alw21I	8	719 1203 2526 2817 3641 4141 5302 5387
Alw44I	4	1199 3637 4137 5383
AlwNI	1	4239
ApaI	1	1430
ApaBI	2	903 2400
ApoI	2	1494 5709
AvaI	2	324 2773
AvaII	9	1771 2147 2235 2484 2787 2829 3108 4854 5076
BamHI	1	319
BanI	12	
BanII	3	603 617 1430
BbsI	5	1365 1704 2078 2941 5694
BbvI	28	
BccI	16	
Bce83I	7	208 2033 2203 3914 4212 4453 5321
BcefI	5	738 1079 1706 2515 4325
BcgI	8	1511 1545 2045 2079 3400 3434 5221 5255
BclI	1	1233
BfaI	6	257 432 2837 4318 4571 4906
BglI	3	2283 2517 4836
BglII	1	497
BmgI	1	1428
BpmI	6	1057 1546 2180 2734 3350 4786
Bpu10I	1	2929
Bpu1102I	1	267
BsaI	1	4777
BsaAI	1	3575
BsaBI	3	496 502 3020
BsaHI	8	542 563 677 1176 1859 2554 5253 5635
BsaJI	11	
BsaWI	7	189 1538 2041 3012 4029 4176 5007
BsaXI	1	1878
BsbI	2	3539 5259
BscGI	13	
BsgI	3	1070 1270 2983
BsiI	3	3996 5380 5687
BsiEI	6	2004 2290 3739 4163 5086 5235
BsII	22	
BsmI	1	2707
BsmAI	7	916 1321 1447 1834 3464 4777 5553
BsmBI	2	1834 3464
BsmFI	4	680 2221 2446 3094
BsoFI	52	
Bsp24I	12	
Bsp1286I	11	
BspEI	2	189 3012
BspGI	3	2407 2484 3349
BspLU11I	1	3823
BspMI	1	2402
BsrI	25	
BsrBI	3	452 3756 5557
BsrDI	4	1266 1632 4777 4951
BsrFI	8	160 529 538 905 2117 2277 2631 4796

Enzyme	# Sites	Locations
BssHII	1	1630
Bst1107I	1	3594
BstEII	1	1400
BstXI	3	1021 1150 1273
BstYI	11	
Cac8I	41	
CjeI	26	
CjePI	28	
ClaI	1	24
CviJI	96	
CviRI	26	
DdeI	11	
DpnI	29	
DraI	3	4582 4601 5293
DrdI	2	3516 3931
DrdII	1	942
DsaI	3	392 656 2795
EaeI	7	349 527 659 1893 2287 2792 5104
EagI	1	2287
Eam1105I	1	4716
EarI	3	837 3707 5511
EciI	5	996 2743 3897 4043 4871
Eco47III	3	624 2125 3077
Eco57I	2	4371 5383
EcoNI	1	754
EcoO109I	5	240 652 2787 2829 5692
EcoRI	1	5709
EcoRII	10	129 942 1257 1797 1854 2406 2789 3849 3970 3983
EcoRV	2	187 1669
FauI	18	
FokI	14	
FspI	3	2706 2804 4938
GdiII	6	349 527 659 1893 2287 5104
HaeI	8	947 2268 2340 2397 2794 3838 3849 4301
HaeII	13	
HaeIII	29	
HgaI	15	
HgiEII	2	817 4409
HhaI	44	
Hin4I	5	16 1118 2489 4715 4789
HincII	2	1725 5257
HindIII	1	29
HinfI	14	
HpaI	1	1725
HphI	17	
MaeII	12	
MaeIII	18	
MboII	15	
MluI	1	1219
MmeI	2	4038 4222
MnlI	34	
MscI	1	2794
MseI	24	
MslI	10	1271 1559 1589 2379 2810 3005 3396 4968 5127 5486
MspI	35	
MspA1I	11	
MwoI	44	
NarI	5	542 563 677 1859 2554
NciI	14	
NcoI	1	392
NdeI	1	331
NgoAIV	4	529 2117 2277 2631
NlaIII	31	
NlaIV	28	
NruI	1	2322
NspI	4	694 3168 3460 3827
Pfl1108I	2	2106 4734

Enzyme	# Sites	Locations
PflMI	3	801 2669 2718
PleI	7	480 768 855 1651 3717 4202 4705
PshAI	1	2064
Psp5II	2	2787 2829
Psp1406I	5	881 2249 3148 4942 5315
PstI	1	4961
PvuI	1	5086
PvuII	3	1819 1912 3414
RcaI	4	617 4543 5551 5656
RsaI	4	165 1366 3629 5196
SapI	1	3707
Sau96I	22	
Sau3AI	37	
ScaI	1	5196
ScrFI	24	
SfaNI	24	
SfcI	5	138 465 4088 4279 4957
SgrAI	1	538
SphI	1	694
SspI	1	5520
StyI	3	244 392 2717
TaqI	14	
TaqII	8	1127 1345 2018 3725 5064 5249 5402 5419
TfiI	7	1898 2200 2354 2652 2873 3377 3798
ThaI	39	
TseI	28	
Tsp45I	9	124 1400 2228 2495 3262 3475 3570 4972 5183
Tsp509I	16	
Tth111I	1	3568
Tth111II	7	1058 1751 3284 4413 4420 4452 5708
UbaJI	24	
VspI	4	480 1904 1963 4888
XbaI	1	431
XcmI	3	1075 1591 1609
XhoI	1	324
XmnI	2	3381 5315

Enzymes that do not cut pET-16b:

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