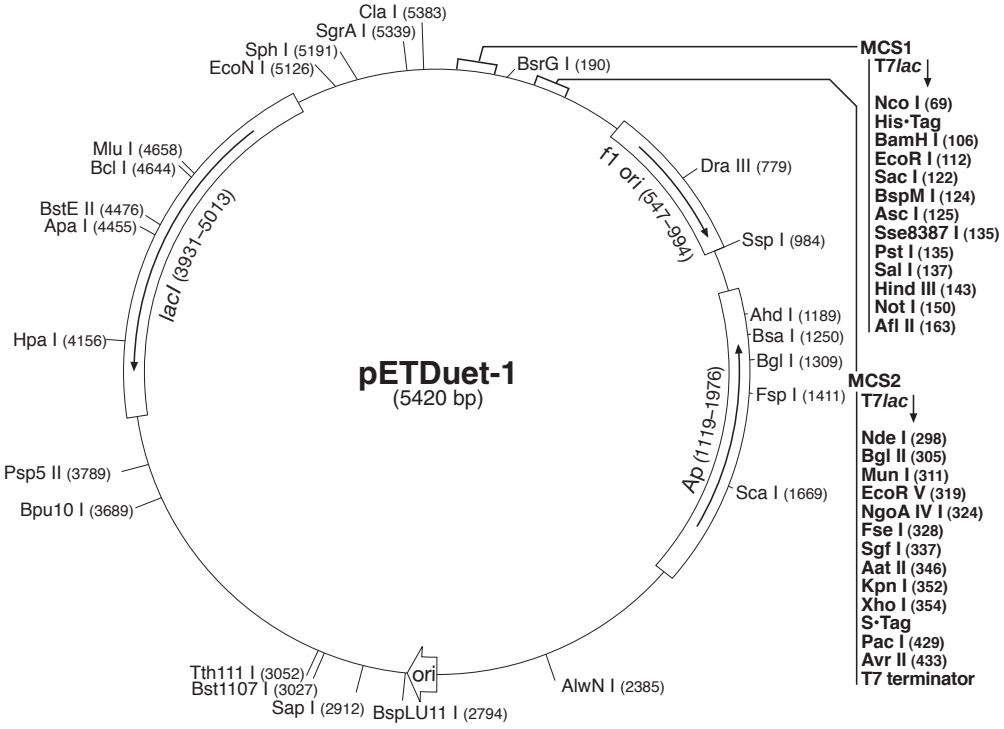
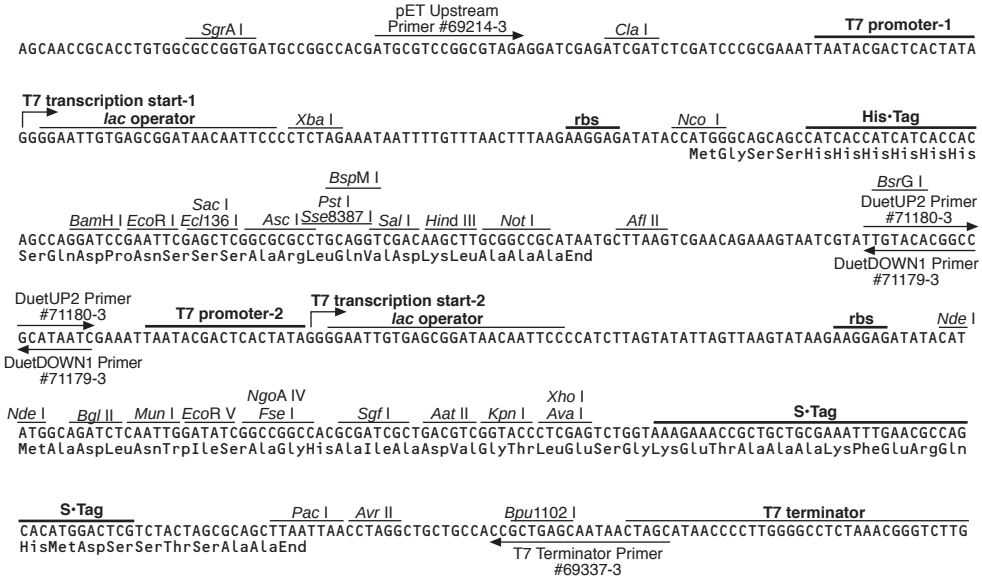
pETDuet-1 Vector

	Cat. No.
pETDuet-1 DNA	71146-3

pETDuet-1 sequence landmarks	
T7 promoter-1	5404–5420
T7 transcription start-1	1
His•Tag® coding sequence	83–100
Multiple cloning sites-1 (*Nco* I–*Afl* II)	69–168
T7 promoter-2	214–230
T7 transcription start-2	231
Multiple cloning sites-2 (*Nde* I–*Avr* II)	297–438
S•Tag™ coding sequence	366–410
T7 terminator	462–509
lacI coding sequence	3931–5013
pBR322 origin	2737
bla (Ap) coding sequence	1119–1976
f1 origin	547–994

pETDuet™-1 is designed for the coexpression of two target genes. The vector contains two multiple cloning sites (MCS), each of which is preceded by a T7 promoter/*lac* operator and a ribosome binding site (rbs). The vector also carries the pBR322-derived ColE1 replicon, *lacI* gene and ampicillin resistance gene. This vector can be used in combination with pACYCDuet™-1 (Cat. No. 71147-3) in an appropriate host strain for the coexpression of up to 4 target genes. Genes inserted into MCS1 can be sequenced using the pET Upstream Primer (Cat. No. 69214-3) and DuetDOWN1 Primer (Cat. No. 71179-3). Genes inserted into MCS2 can be sequenced using the DuetUP2 Primer (Cat. No. 71180-3) and T7 Terminator Primer (Cat. No. 69337-3).





pETDuet-1 cloning/expression regions

pETDuet-1 Restriction Sites

TB337 RevA 0903

Enzyme	# Sites	Locations
AatII	1	346
AccI	3	138 411 3026
AciI	78	
AflII	1	163
AflIII	2	2794 4658
AhdI	1	1189
AluI	25	
Alw26I	7	1250 2027 3153 4043 4430 4556 4961
AlwI	15	
AlwNI	1	2385
ApaI	1	4455
ApaLI	4	1856 2480 2980 4678
ApoI	5	112 384 959 970 4383
AscI	1	125
AvaI	1	354
AvaII	5	1327 1549 3510 3789 4107
AvrII	1	433
BamHI	1	106
BanI	9	348 735 1137 3889 4019 4738 5201 5315 5336
BanII	5	122 705 4455 5268 5282
BbsI	3	3676 4173 4512
BbvI	28	
BcgI	4	162 1728 3223 4338
BclI	1	4644
BfaI	10	31 415 434 462 623 1044 1379 2301 3782 3817
BglI	1	1309
BglII	1	305
BpmI	4	1259 3273 4337 4826
Bpu10I	1	3689
Bpu1102I	1	451
BsaAI	2	776 3046
BsaBI	3	3601 5379 5389
BsaHI	7	343 1726 4020 4703 5202 5316 5337
BsaI	1	1250
BsaJI	7	69 433 473 2634 4023 5215 5221
BsaWI	7	528 1480 2441 2588 3605 3836 4339
BsgI	3	3640 4613 4813
BsiEI	9	153 199 325 337 1559 1708 2460 2884 3879
BsiHKAI	8	122 1775 1860 2484 2984 3808 4682 5166
BsII	22	
BsmBI	2	3153 4043
BsmFI	3	557 3523 5197
Bsp1286I	12	
BspEI	2	528 3605
BspLU11I	1	2794
BspMI	1	124
BsrBI	5	13 243 632 2031 2865
BsrDI	4	1250 1424 4251 4617
BsrFI	6	324 671 1269 4972 5339 5348
BsrGI	1	190
BsrI	24	
BssHII	2	125 4247
BssSI	2	1853 2621
Bst1107I	1	3027
BstEII	1	4476
BstXI	3	4612 4735 4864
BstYI	11	
Cac8I	36	
ClaI	1	5383
CviJI	84	
DdeI	10	262 451 1146 1686 2111 2520 2987 3527 3689 4087
DpnI	28	
DraI	3	1055 1074 1766
DraIII	1	779
DrdI	3	823 2692 3107
DsaI	2	69 5221
EaeI	8	150 196 322 326 1577 3984 5218 5350
EagI	3	150 196 322
EarI	3	1984 2911 5041
Ecl136II	1	120
Eco47III	2	3544 5257
Eco57I	2	1856 2252
EcoNI	1	5126
EcoO109I	3	478 3789 5226
EcoRI	1	112
EcoRII	8	102 2633 2646 2767 4022 4079 4619 4934
EcoRV	1	319
EheI	4	4021 5203 5317 5338
FauI	16	
Fnu4HI	48	
FokI	10	1155 1336 1623 3108 3249 3435 3513 3575 4603 4612
FseI	1	328
FspI	1	1411
HaeII	13	
HaeIII	24	
HgaI	12	
HhaI	44	
HincII	2	139 4156
HindIII	1	143
HinfI	16	
HpaI	1	4156
HphI	18	
KpnI	1	352
MaeIII	17	
MboII	13	
MluI	1	4658
MnlI	25	
MseI	33	
MslI	9	1441 1600 1959 3225 3616 3811 4292 4322 4610
MspA1I	10	375 450 1824 2211 2456 3088 3207 3969 4062 4632
MspI	29	
MunI	1	311
MwoI	34	
NarI	4	4020 5202 5316 5337
NciI	12	
NcoI	1	69
NdeI	1	298
NgoAIV	3	324 671 5348
NlaIII	26	
NlaIV	22	
NotI	1	150
NspI	4	2798 3165 3457 5191
PacI	1	429
PflMI	2	401 5083
PleI	12	
Psp1406I	5	989 1415 1788 3471 4998
Psp5II	1	3789
PstI	1	135
PvuI	2	337 1559
PvuII	3	3207 3969 4062
RcaI	4	1993 2025 2074 5260
RsaI	5	192 350 1669 2992 4515
SacI	1	122
SalI	1	137
SapI	1	2911
Sau3AI	28	
Sau96I	15	
ScaI	1	1669
ScrFI	20	
SfaNI	20	
SfcI	7	131 226 553 1430 2338 2529 5416
SgfI	1	337
SgrAI	1	5339
SphI	1	5191
Sse8387I	1	135
SspI	1	984
StyI	3	69 433 473
TaiI	15	
TaqI	16	
TfiI	4	2820 3241 3745 3980
ThaI	34	
TseI	28	
Tsp45I	7	598 1445 1656 3046 3141 3354 4476
Tsp509I	22	
TspRI	13	
Tth111I	1	3052
VspI	5	213 1361 3916 3975 5403
XbaI	1	30
XcmI	3	4273 4291 4807
XhoI	1	354
XmnI	2	1788 3240

Enzymes that do not cut pETDuet-1:

BseRI	BsmI	Bsu36I	MscI	NheI	NruI
NsiI	NspV	PinAI	PmeI	PmlI	PshAI
RsrII	SacII	SanDI	SexAI	SfiI	SmaI
SnaBI	SpeI	SrfI	StuI	SunI	SwaI