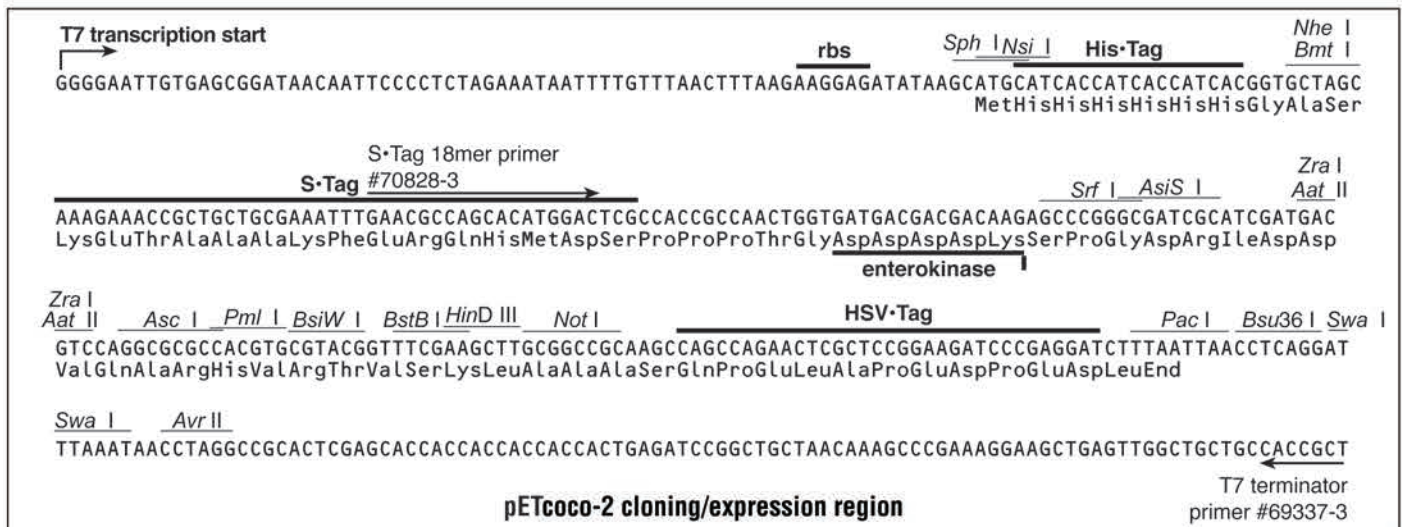
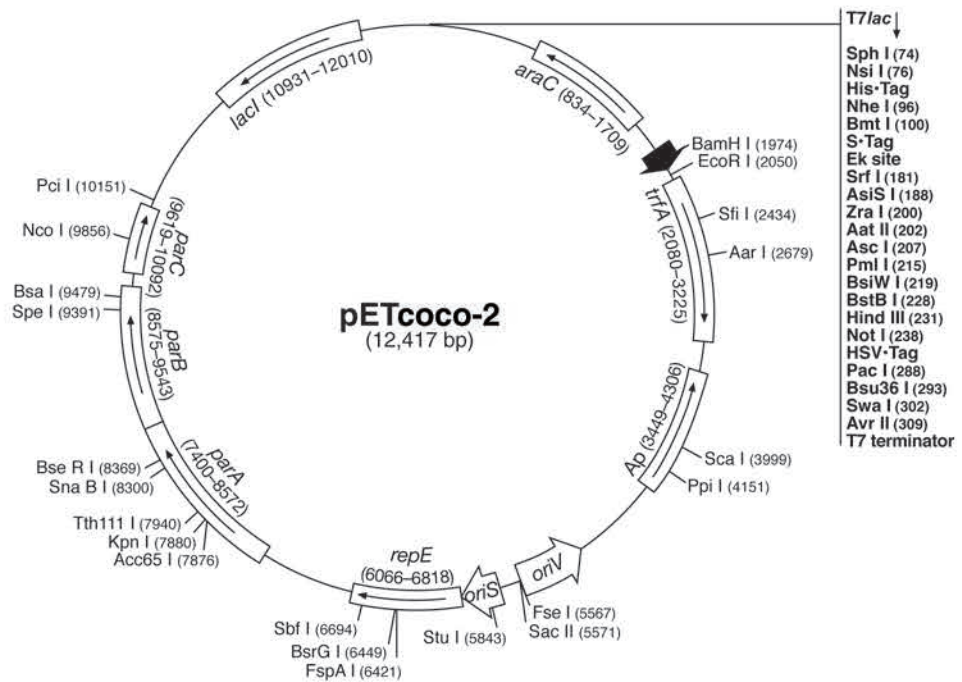


pETCOCO-2 VECTOR

	Cat. No.
pETcoco-2 DNA	71148-3
pETcoco-2 sequence landmarks	
T7 promoter	12401-12417
<i>lac</i> operator	5-25
T7 transcription start	1
Multiple cloning sites (<i>Sph</i> I- <i>Avr</i> II)	74-309
His•Tag [®] coding sequence	75-92
S•Tag [™] coding sequence	102-146
HSV•Tag [®] coding sequence	246-281
T7 terminator	410-457
<i>araC</i> coding sequence	834-1709
<i>trfA</i> coding sequence	2080-3225
Ap (<i>bla</i>) coding sequence	3449-4306
<i>oriV</i>	5040-5565
<i>oriS</i>	5756-5972
<i>repE</i> coding sequence	6066-6818
<i>parA</i> coding sequence	7400-8572
<i>parB</i> coding sequence	8575-9543
<i>parC</i> region	9619-10092
<i>lacI</i> coding sequence	10931-12010

The pETcoco[™] expression vectors are designed to allow “on command” amplification of vector copy number from single copy (1-2 plasmid copies per cell) to medium copy (20- 50 per cell). The vector is maintained in the single copy state by utilizing the *oriS* and *repE* elements of the F episome together with the *parABC* partition determinants. The medium copy state is obtained by employing the RK-2 derived *trfA* replicator acting at *oriV*. The switch from single copy to medium copy status is achieved by inducing the expression of the *trfA* gene with arabinose. The dual replicon nature of these vectors promotes enhanced stability of recombinant plasmids and extremely low basal expression levels in the single copy state, while allowing robust target protein expression typical of the pET vectors. Unique restriction sites are shown on the circle map (below). The sequence is numbered relative to the start of T7 transcription at +1.



pETcoco-2 Restriction Sites

Enzyme	# Sites	Locations
AarI	1	2679
AatII	1	202
Acc65I	1	7876
AccI	4	3277 4464 9563 10332
AcII	4	3745 4118 8268 11995
AfeI	2	7235 12254
AflII	3	1036 9277 9517
AflIII	5	1870 7642 7816 10151 11655
AgeI	4	1809 6496 7726 8619
AhdI	3	2844 3519 10155
AleI	2	3118 9212
AloI	2	4733 8370
AlwNI	7	2763 2937 5010 7778 7798 8820 10682
ApaI	2	9641 11452
ApaLI	2	4186 11675
Ascl	1	207
Asel	8	3691 4711 7668 8160 10431 10913 10972 12400
AsiSI	1	188
AvaI	7	179 273 320 889 4954 6160 8786
AvrII	1	309
BaeI	3	1006 8164 10430
BamHI	1	1974
BanI	15	
BanII	9	180 653 9641 10341 10349 10759 11452 12265 12279
BbeI	4	11020 12202 12316 12337
BbsI	5	7719 7908 8785 11170 11509
BceAI	28	
BcgI	6	866 1233 2700 4058 10306 11335
BciVI	4	1682 4356 5556 11203
BclI	2	8467 11641
BfrBI	1	74
BglI	4	2434 3639 5840 10289
BglIII	2	5815 7882
BlpI	2	399 7148
Bme1580I	8	2864 3374 4190 5065 5341 9641 11452 11679
BmgBI	6	2616 2628 2846 5428 7706 10466
Bmri	7	3559 9687 9816 10857 11497 11734 12131
BmtI	1	100
BpII	2	8517 8799
Bpml	7	3589 7133 7546 8512 9443 11334 11823
Bpu10I	2	6596 7791
BpuEI	9	463 1224 3058 4124 5257 5303 5475 8246 10847
BsaAI	5	215 7817 8300 8405 9142
BsaBI	6	976 2350 10423 10507 12376 12386
BsaHI	9	199 1928 2648 4056 11017 11700 12199 12313 12334
BsaI	1	9479
BsaWI	14	
BsaXI	7	2028 4712 7519 8237 8922 9416 10987
BseRI	1	8369
BseYI	7	1588 3250 5636 8559 9316 11121 11256
BsgI	6	2869 4529 7991 8936 11610 11810
BsiEI	21	
BsiHKAI	12	
BsiWI	1	219
BsmAI	11	
BsmBI	3	2317 6611 11040
BsmFI	25	

Enzyme	# Sites	Locations
BsmI	2	1832 2812
Bsp1286I	22	
BspCNI	26	
BspEI	4	263 476 1450 8436
BspHI	6	4354 4756 7450 8104 9300 12257
BspLU11I	1	10151
BspMI	6	2320 2679 3129 5135 6683 10450
BsrBI	6	13 580 2546 3072 4360 4844
BsrDI	12	
BsrFI	19	
BsrGI	1	6449
BssHII	5	207 1405 8133 8677 11244
BssSI	4	4183 7826 9476 10039
BstAPI	4	738 4507 10314 11979
BstBI	1	228
BstEII	3	1812 10273 11473
BstXI	4	7754 11609 11732 11861
BstYI	16	
Bsu36I	1	293
BtgI	18	
BtrI	6	2616 2628 2846 5428 7706 10466
BtsI	6	1773 3919 3939 8228 10928 11296
Clai	2	193 12380
DraI	6	302 914 4096 5139 7302 10647
DraIII	2	4507 10492
DrdI	4	1769 5923 6818 8114
EaeI	21	
EagI	9	238 724 2288 4992 5037 5434 5561 5565 5626
EarI	9	1798 3152 4314 6318 6358 7272 8482 8892 12038
Ecil	10	1077 1205 2127 3079 3662 5197 5494 6084 6666 11870
Ecl136II	3	10339 10347 10757
Eco57I	9	1685 4186 4783 6382 6895 7731 7826 9356 10416
Eco57MI	16	
EcoICRI	3	10339 10347 10757
EcoNI	2	6138 12123
EcoO109I	7	426 2403 2760 2934 3228 10527 12223
EcoRI	1	2050
EcoRV	4	1121 6797 7026 11209
FseI	1	5567
FspAI	1	6421
FspI	3	3741 6421 10247
HaeII	14	
HincII	9	2619 3278 5464 5499 6194 8875 10298 10333 11153
HindIII	1	231
HpaI	2	10298 11153
KasI	4	11016 12198 12312 12333
KpnI	1	7880
MfeI	4	809 1233 1743 7656
MluI	2	1870 11655
MscI	2	5418 8087
MslI	17	
NaeI	8	621 2397 5434 5558 5565 6374 10290 12347
NarI	4	11017 12199 12313 12334
NcoI	1	9856
NdeI	2	2992 7674
NgoMIV	8	619 2395 5432 5556 5563 6372 10288 12345
NheI	1	96
NotI	1	238

Enzyme	# Sites	Locations
NruI	3	923 1443 10343
NsiI	1	76
NspI	4	74 1103 10155 12188
NspV	1	228
Pacl	1	288
Pcil	1	10151
PfiMI	6	137 1655 2763 4895 7968 12080
PfoI	3	2900 9420 12087
PinAI	4	1809 6496 7726 8619
PmlI	1	215
Ppil	1	4151
PpuMI	4	2403 2760 2934 10527
PshAI	9	4441 9686 9729 9772 9815 9858 9901 9987 10073
Psil	2	5126 5791
PspOMI	2	9637 11448
PstI	3	2690 6694 8235
PvuI	3	188 3889 8542
PvuII	4	6644 8650 10966 11059
SacI	3	10341 10349 10759
SacII	1	5571
Sall	2	3276 10331
SapI	3	1798 7272 8482
SbfI	1	6694
Scal	1	3999
SexAI	2	3206 10269
Sfcl	9	501 2686 2821 3760 6222 6690 8231 10166 12413
Sfil	1	2434
SfoI	4	11018 12200 12314 12335
SgrAI	6	2395 2644 5556 7726 8883 12336
Smal	2	181 6162
SmlI	14	
SnaBI	1	8300
SpeI	1	9391
SphI	1	74
SrfI	1	181
Sse8387I	1	6694
Sspl	7	1371 4323 5131 6274 9108 9135 9627
StuI	1	5843
StyI	6	309 421 4574 5755 6402 9856
Swal	1	302
TaqII	17	
TatI	3	1154 3997 6449
TspGWI	12	
Tth111I	1	7940
XbaI	2	30 5861
XcmI	4	5366 11270 11288 11804
XhoI	2	320 4954
XmaI	2	179 6160
XmnI	5	4118 6327 6397 9108 10592
ZraI	1	200

Enzymes that do not cut pETcoco-2:

BbvCI Bst1107I BstZ17I Fall PmeI PstI
RsrII SanDI