

pBR322

GenBank Accession #: J01749
See page 128 for ordering information.

There are no restriction sites for the following enzymes: AbsI(x), Acc65I, AfIII, Agel, Ajul(x), AleI, Aloi(x), ApaI, ArsI(x), AscI, AsiSI, AvrII, BaeI, BarI(x), BbvCI, BclI, BglII, BlnI, BmgBI, BpII(x), BsaXI, BseRI, BsiWI, BsrGI, BssHII, BstBI, BstEII, BstXI, Bsu36I, CspCI, DraIII, Eco53KI, Fall(x), FseI, HpaI, KflI(x), KpnI, MauBI(x), MfeI, MluI, MreI(x), MteI(x), NcoI, NotI, NsiI, PacI, PaeR7I, PaqCI, PstI(x), PmeI, PmlI, PstI, PspOMI, PspXI, PstI(x), RsrII, SacI, SacII, SbfI, SexAI, SfiI, SgrDI(x), SmaI, SnaBI, SpeI, SrfI, StuI, SwaI, TspMI, XbaI, XcmI, XhoI, XmaI

(x) = enzyme not available from NEB

pBR322 is an *E. coli* plasmid cloning vector containing the origin of replication from pMB1 (a plasmid in the ColE1 compatibility group; 1–3). The *rop* gene product, which regulates plasmid replication by stabilizing the interaction between RNAI and RNAII transcripts, maintains the copy number at about 20 per cell. However, pBR322 can be amplified with chloramphenicol or spectinomycin (4).

Enzymes with unique restriction sites are shown in **bold** type and enzymes with two restriction sites are shown in regular type. **Coordinates indicate position of cutsite on the top strand. In previous catalogs, coordinates referred to the position of the 5' most base on the top strand, please make note of new numbering system.**

Open reading frame (ORF) coordinates are in the form "translational start – translational stop"; numbers refer to positions on the top (clockwise) strand, regardless of the direction of transcription and include the start and stop codons.

Origin of replication coordinates include the region from the -35 promoter sequence of the RNAII transcript to the RNA/DNA switch point. *bla* (Ap^R) gene coordinates include the signal sequence.

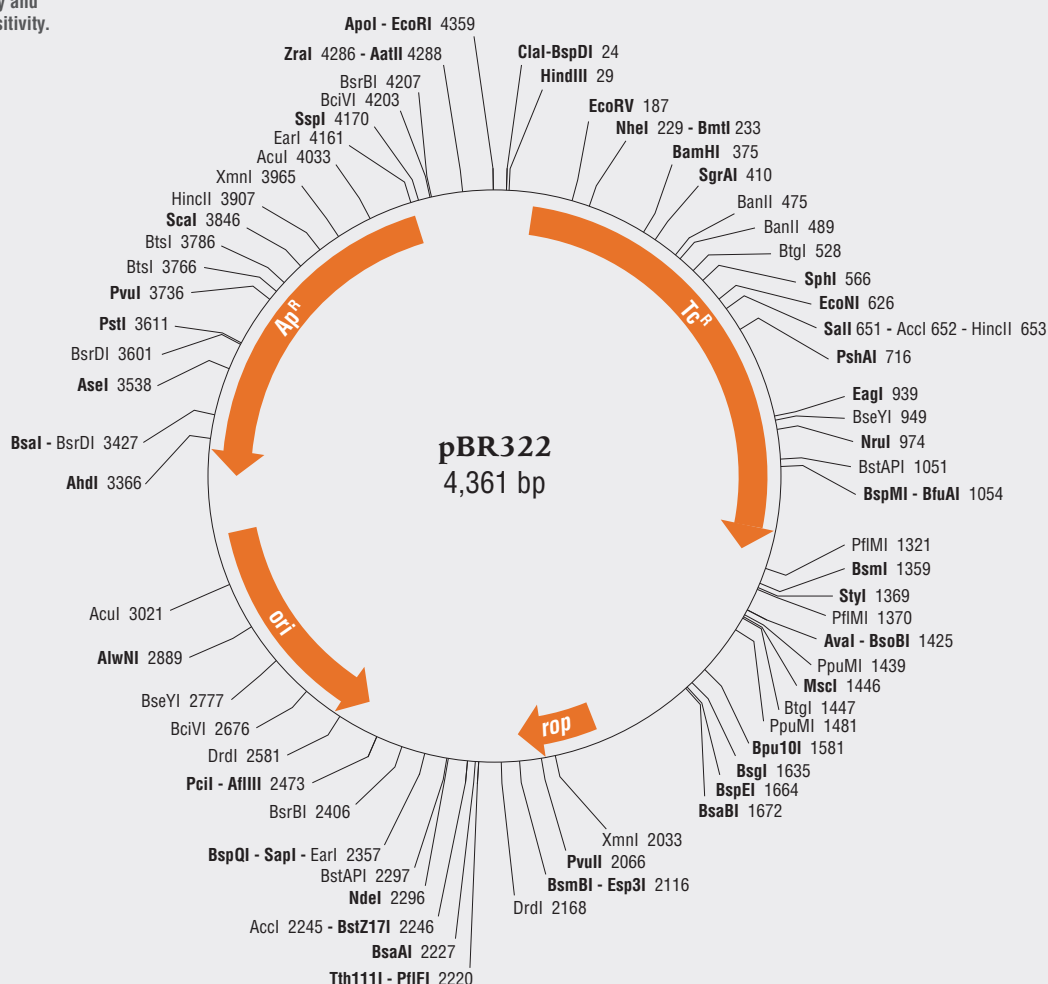
Feature	Coordinates	Source
<i>tet</i> (Tc ^R)	86-1276	pSC101
<i>bla</i> (Ap ^R)	4153-3293	<i>Tn3</i>
<i>rop</i>	1915-2106	pMB1
origin	3122-2534	pMB1

ori = origin of replication

Ap = ampicillin, Tc = tetracycline



We recommend NEBcutter at NEBcutter.com to identify the restriction sites within your DNA sequence. NEBcutter indicates cut frequency and methylation-state sensitivity.



References

- (1) Bolivar, F. et al. (1977) *Gene*, 2, 95–113.
- (2) Sutcliffe, J.G. (1979) *Cold Spring Harb. Symp. Quant. Biol.*, 43, 77–90.
- (3) Watson, N. (1988) *Gene*, 70, 399–403.
- (4) Sambrook, J., Fritsch, E.F., and Maniatis, T. (1989). *Molecular Cloning: A Laboratory Manual*, (2nd ed.), Cold Spring Harbor, Cold Spring Harbor Laboratory Press.