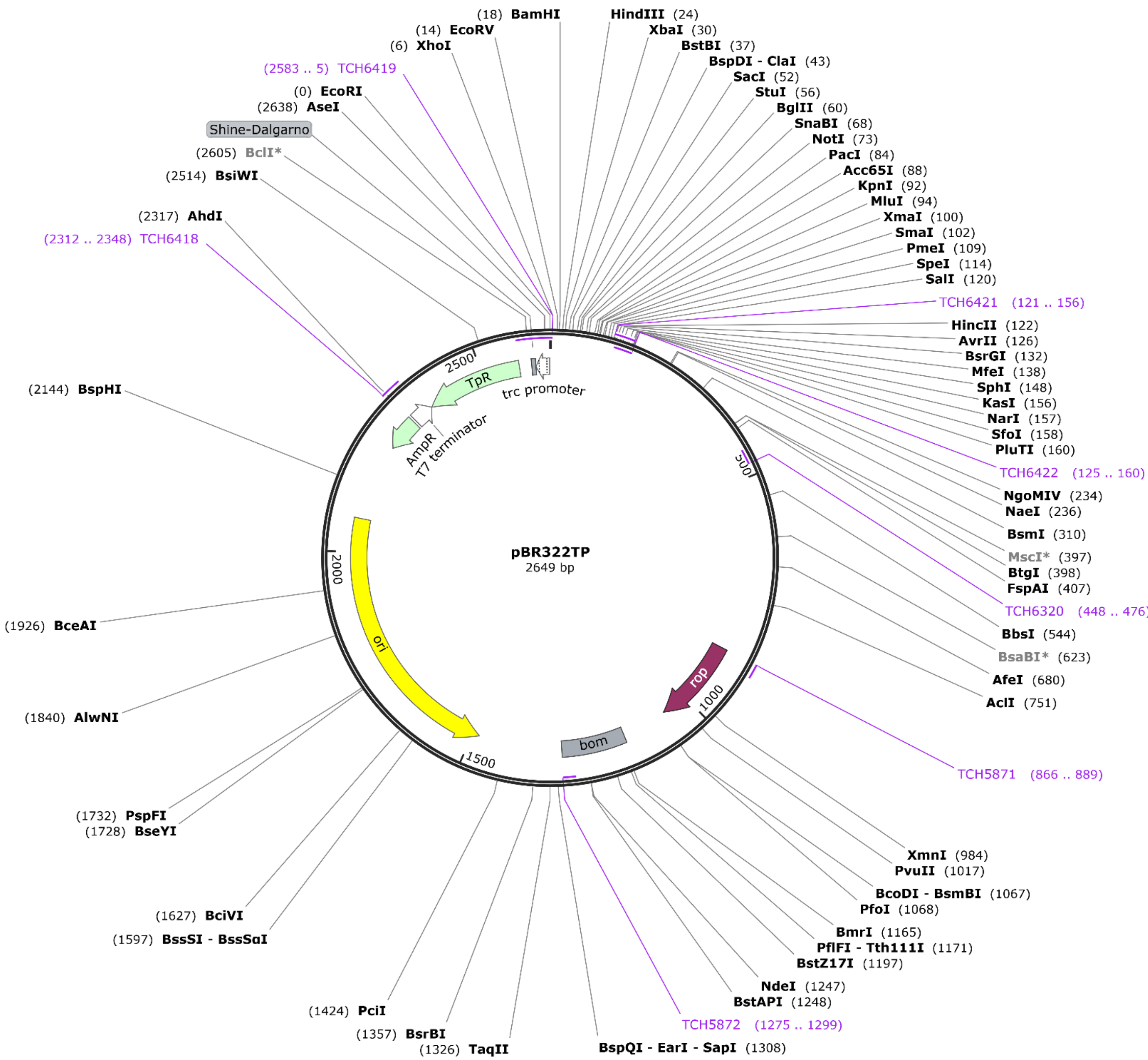
Vector: **pBR322TP** (not fully sequenced)

Antibiotics: Tp (Trimethoprim, Tp or TMP)

Creator(s): Yuting Liang, Molecular Oncology Lab of The University of Chicago Medical Center

Date of Construction: July 2025



pBR322TP Full Sequence (not fully sequenced)

```
AATTCCTCGAGGATATCGGATCCAAGCTTTCTAGATTCGAAATCGATGAGCTCAGGCCTAGATCTTACGTAGCGG
CCGCTTAATTAAGGTACCACGCGTCCCGGGGTTTAAACACTAGTGTCGACCCTAGGtgtacaCAATTGgcatgcT
CCGGAGGCGCCgccctataccttgtctgcctccccgcgttgcgtcgcggtgcatggagccgggccacctcgacct
gaatggaagccggcggcacctcgctaacggattcaccactccaagaattggagccaatcaattcttgcggagaac
tgtgaatgcgcaaaccaacccttggcagaacatatccatcgcgtccgccatctccagcagccgcacgcggcgcat
ctcgggcagcgttgggtcctggccacgggtgcgcatgatcgtgctcctgtcgttgaggacccggctaggctggcg
gggttgccttactggttagcagaatgaatcaccgatacgcgagcgaacgtgaagcgactgctgctgcaaaacgtc
tgcgacctgagcaacaacatgaatggtcttcggtttccgtgtttcgtaaagtctggaaacgcggaagtcagcgcc
ctgcaccattatgttccggatctgcatcgcaggatgctgctggctaccctgtggaacacctacatctgtattaac
gaagcgctggcattgaccctgagtgatttttctctggtcccgccgcatccataccgccagttgtttaccctcaca
acgttccagtaaccgggcatgttcatcatcagtaacccgtatcgtgagcatcctctctcgtttcatcggtatcat
tacccccatgaacagaaatcccccttacacggaggcatcagtgaccaaacaggaaaaaaccgcccttaacatggc
ccgctttatcagaagccagacattaacgcttctggagaaactcaacgagctggacgcggatgaacaggcagacat
ctgtgaatcgcttcacgaccacgctgatgagctttaccgcagctgcctcgcgcgtttcggtgatgacggtgaaaa
cctctgacacatgcagctcccggagacggtcacagcttgtctgtaagcggatgccgggagcagacaagcccgtca
gggcgcgtcagcgggtgttggcgggtgtcggggcgcagccatgacccagtcacgtagcgatagcggagtgtatac
tggcttaactatgcggcatcagagcagattgtactgagagtgcaccatatgcggtgtgaaataccgcacagatgc
gtaaggagaaaataccgcatcaggcgctcttccgcttcctcgctcactgactcgctgcgctcggtcgttcggctg
cggcgagcggtatcagctcactcaaaggcggtaatacggttatccacagaatcaggggataacgcaggaaagaac
atgtgagcaaaaggccagcaaaaggccaggaaccgtaaaaaggccgcgttgctggcgtttttccataggctccgc
ccccctgacgagcatcacaaaaatcgacgctcaagtcagaggtggcgaaacccgacaggactataaagataccag
gcgtttccccctggaagctccctcgtgcgctctcctgttccgaccctgccgcttaccggatacctgtccgccttt
ctcccttcgggaagcgtggcgctttctcatagctcacgctgtaggtatctcagttcggtgtaggtcgttcgctcc
aagctgggctgtgtgcacgaaccccccgttcagcccgaccgctgcgccttatccggtaactatcgtcttgagtcc
aacccggtaagacacgacttatcgccactggcagcagccactggtaacaggattagcagagcgaggtatgtaggc
ggtgctacagagttcttgaagtggtggcctaactacggctacactagaaggacagtatttggtatctgcgctctg
ctgaagccagttaccttcggaaaaagagttggtagctcttgatccggcaaacaaaccaccgctggtagcggtggt
ttttttgtttgcaagcagcagattacgcgcagaaaaaaaggatctcaagaagatcctttgatcttttctacgggg
tctgacgctcagtggaacgaaaactcacgttaagggattttggtcatgagattatcaaaaaggatcttcacctag
atccttttaaattaaaaatgaagttttaaatcaatctaaagtatatatgagtaaacttggtctgacagttaccaa
tgcttaatcagtgaggcacctatctcagcgatctgtctatttcgttcatccatagttgcctgactccccGTCagc
ataaccccttggggcctctaaacgggtcttgaggggttttttgTCAGGCCACACGTTCAAGTGCAGCCACAGGAT
AAATTTGCACTGAGCCTGGGTGGGATTCGGACTCGACCGCATAGCCTTCAGGAGTGAGTTTTGTGCAATACCAAC
CGACGACTTGACCCTGCCAAGCGGCACCAGATTTCTTGCGTACGCGATCCCCTAAGCCAAAGGTGGCACTCAGGG
GAAGCGCAAACTGCCCTGCAACGGGAGCGTTGGCTTCATCGCTACTTTGACCCATgatcACCTCCTTACATTATA
CGAGCCGGATGATTAATTGTCAAg
```

Zero Cutters in pBR322TP

Enzyme	Cuts	Recognition Sequence
AatII	0	GACGTC
AflII	0	CTTAAG
AgeI	0	ACCGGT
AleI	0	CACNNNNGTG
ApaI	0	GGGCCC
AscI	0	GGCGCGCC
AsiSI	0	GCGATCGC
BaeI	0	(N)5(N)10ACNNNNGTAYC(N)7(N)5
BbvCI	0	CCTCAGC
BfuAI	0	ACCTGCNNNNNNNN
BglI	0	GCCNNNNNGGC
BlpI	0	GCTNAGC
BmgBI	0	CACGTC
BmtI	0	GCTAGC
BsaI	0	GGTCTCNNNNN
BsaXI	0	NNN(N)9AC(N)5CTCC(N)7NNN
BseRI	0	GAGGAG(N)8NN
BspMI	0	ACCTGCNNNNNNNN
BsrDI	0	GCAATGNN
BssHII	0	GCGCGC
BstEII	0	GGTNACC
BstXI	0	CCANNNNNNTGG

Bsu36I	0	CCTNAGG
BtsI	0	GCAGTGNN
CspCI	0	NN(N)11CAA(N)5GTGG(N)10NN
DraIII	0	CACNNNGTG
EcoNI	0	CCTNNNNNAGG
EcoRI	0	GAATTC
FseI	0	GGCCGGCC
HpaI	0	GTTAAC
I-CeuI	0	TAACTATAACGGTCCTAAGGTAGCGAA
I-SceI	0	TAGGGATAACAGGGTAAT
Nb.BbvCI	0	CCTCAGC
Nb.BsrDI	0	GCAATG
Nb.BtsI	0	GCAGTG
NcoI	0	CCATGG
NheI	0	GCTAGC
NmeAIII	0	GCCGAG(N)19NN
NruI	0	TCGCGA
NsiI	0	ATGCAT
Nt.BbvCI	0	CCTCAGC
PaqCI	0	CACCTGCNNNNNNNN
PI-PspI	0	TGGCAAACAGCTATTATGGGTATTATGGGT
PI-SceI	0	ATCTATGTCGGGTGCGGAGAAAGAGGTAATGAAATGG
PmlI	0	CACGTG
PshAI	0	GACNNNNGTC
PsiI	0	TTATAA
PspOMI	0	GGGCCC
PstI	0	CTGCAG
PvuI	0	CGATCG
RsrII	0	CGGWCCG
SacII	0	CCGCGG
SbfI	0	CCTGCAGG
ScaI	0	AGTACT
SexAI	0	ACCWGGT
SfiI	0	GGCCNNNNNGGCC
SgrAI	0	CRCCGGYG
SrfI	0	GCCCGGGC
SspI	0	AATATT
SwaI	0	ATTTAAAT
XcmI	0	CCANNNNNNNNNTGG
ZraI	0	GACGTC