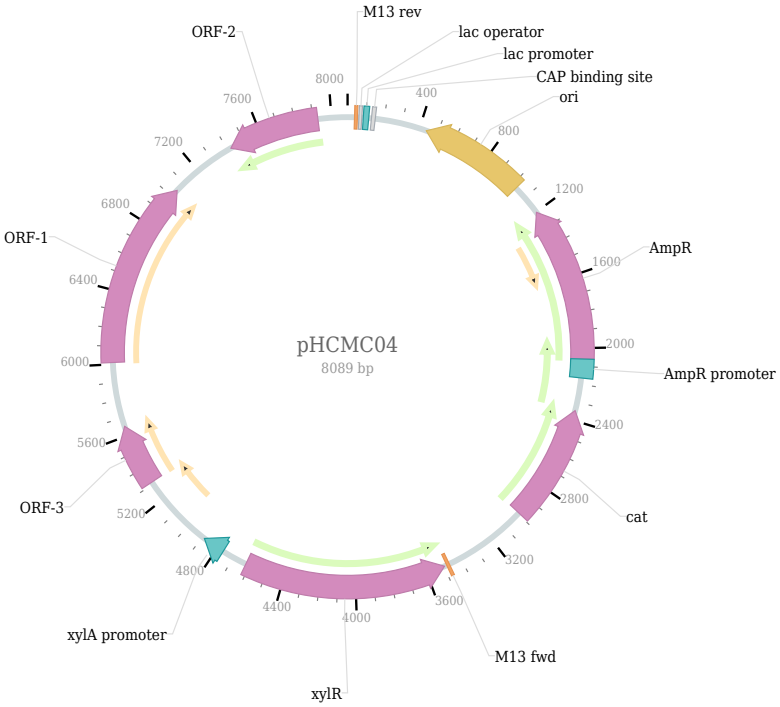
pHCMC04

Vector ID	V013413
Antibiotic Resistance	Ampicillin
Length	8089 bp
Vector Type	Protein expression
Host	Bacillus subtilis

Product Information

Replication Origin	ori
Selection Marker	Chl
Promoter	xylA
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	pHCMC04 (Nguyen et al., 2005) is a plasmid-based E. coli / B. subtilis shuttle expression vector that replicates as a theta circle, derived from the pMTLBS72 backbone. It carries the PxylA–xylR xylose-inducible cassette from B. megaterium (pAX01) placed upstream of the multiple cloning site. The vector provides ampicillin resistance in E. coli and chloramphenicol resistance in B. subtilis, and exhibits tightly repressed basal expression with strong induction by xylose, making it suitable for controlled recombinant protein production in Bacillus.

Vector Map



Plasmid Resuspension Protocol

1. Centrifuge at 5,000×g for 5 min.
2. Carefully open the tube and add sterile water to dissolve the DNA: add 20 µl for 5 µg plasmid, and 100 µl for 100 µg plasmid.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin to concentrate the liquid at the bottom. Speed is less than 5000×g.
5. Store the plasmid at -20 ℃.