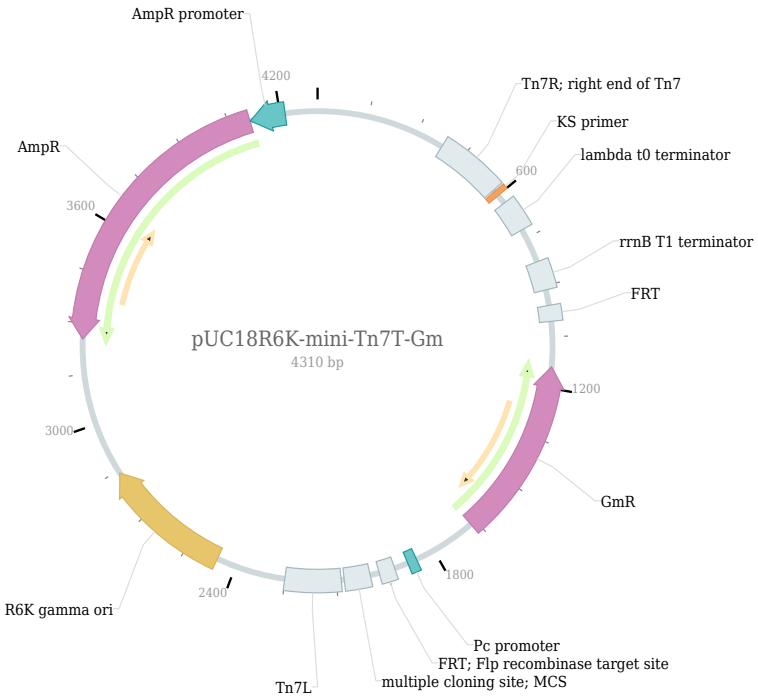
pUC18R6K-mini-Tn7T-Gm

Vector ID	V002420
Antibiotic Resistance	Ampicillin
Length	4310 bp
Vector Type	Cloning vector

Product Information

Replication Origin	R6K γ ori
Source/Author	Choi KH, Gaynor JB, White KG, Lopez C, Bosio CM, Karkhoff-Schweizer RR, Schweizer HP.
Promoter	Pc
Growth Temperature	37℃
Comment	pUC18R6K-mini-Tn7T-Gm (Cat. No. V002420) is a mobilizable suicide plasmid for site-specific chromosomal integration in Gram-negative bacteria. It carries an R6K γ origin, restricting replication to π protein–expressing donor strains (e.g., E. coli S17-1/λpir), and a mini-Tn7T cassette flanked by Tn7L/Tn7R ends. Upon conjugal delivery with a helper plasmid supplying TnsABC+D, the cassette integrates as a single copy into the native attTn7 site downstream of glmS, an insertion that is typically fitness-neutral and scarless. A gentamicin resistance cassette (aacC1) enables selection of transposon mutants. The vector is widely used for stable, single-copy gene insertion in complementation, fluorescent tagging, and heterologous expression studies.

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 ℃.