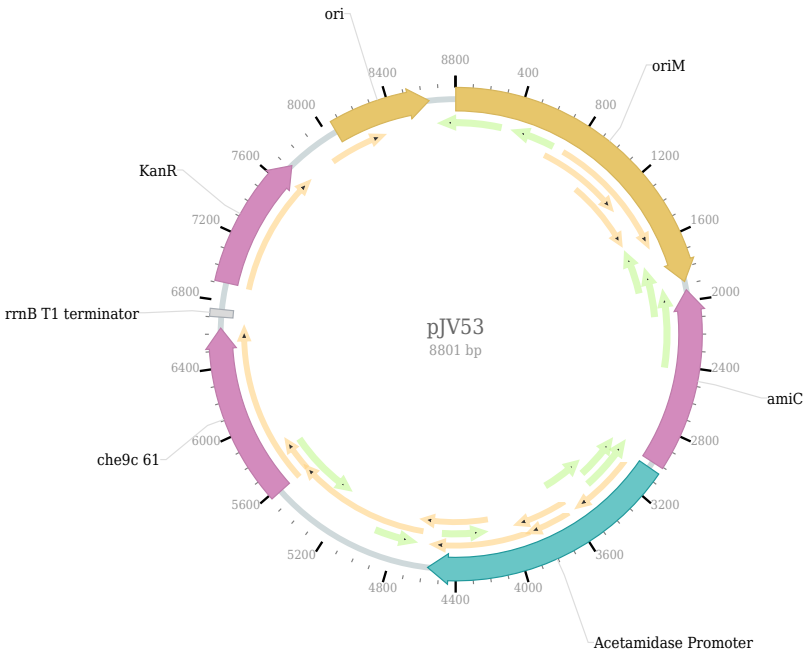
pJV53

Vector ID	V012094
Antibiotic Resistance	Kanamycin
Length	8801 bp
Vector Type	Bacterial Expression

Product Information

Replication Origin	ori
Selection Marker	Kanamycin
Copy Number	High Copy
Cloning Method	Restriction Enzyme
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	pJV53 is an acetamide-inducible mycobacterial shuttle plasmid co-expressing mycobacteriophage Che9c gp60 (exonuclease) and gp61 (ssDNA-binding protein) for mycobacterial recombineering. Its tightly controlled low basal expression avoids severe host toxicity seen in related plasmids like pJV24 and pJV63. It drastically boosts homologous allelic exchange efficiency in both fast-growing M. smegmatis and slow-growing M. tuberculosis H37Rv. This vector has become the standard tool to easily generate targeted gene knockout mutants in mycobacteria.

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 ℃.