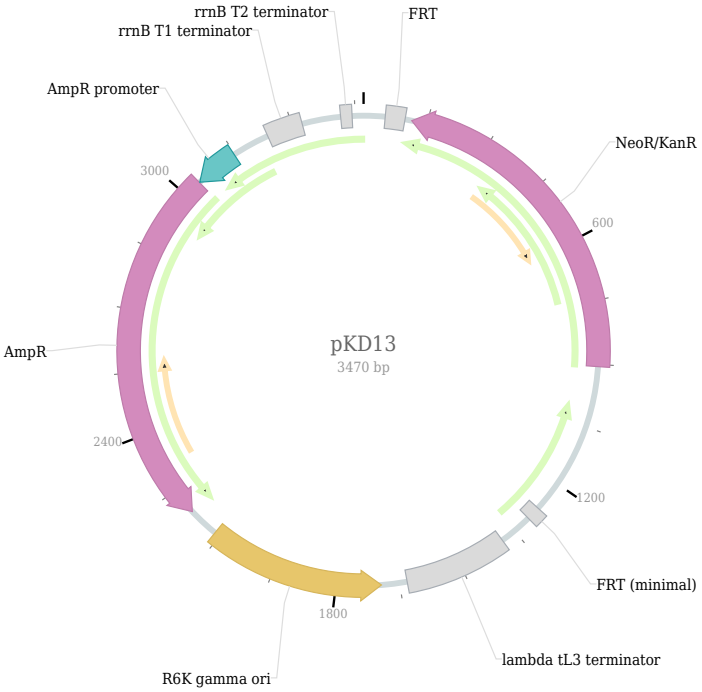
pKD13

Vector ID	V000040
Antibiotic Resistance	Ampicillin, Kanamycin
Length	3470 bp
Vector Type	Knockout Vectors

Product Information

Replication Origin	R6K γ ori
Cloning Method	Enzyme digestion and ligation
Comment	The plasmid pKD13 contains the R6Kγ origin of replication (ori). This particular ori requires the λpir protein for initiation of replication. For this reason, pKD13 cannot replicate in conventional bacterial strains such as DH5α. DH5α lacks the pir+ gene that is essential for expressing the λpir protein required for pKD13 replication. However, pKD13 can proliferate in bacteria that contain the pir+ gene, such as S17-1λpir or DH5αλpir. These strains are engineered to express the λpir protein, which enables the replication of pKD13. It provides specificity in genetic manipulation by only replicating in strains with the pir+ gene. This allows for precise engineering tasks and controlled experiments with reduced background noise.

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 ℃.