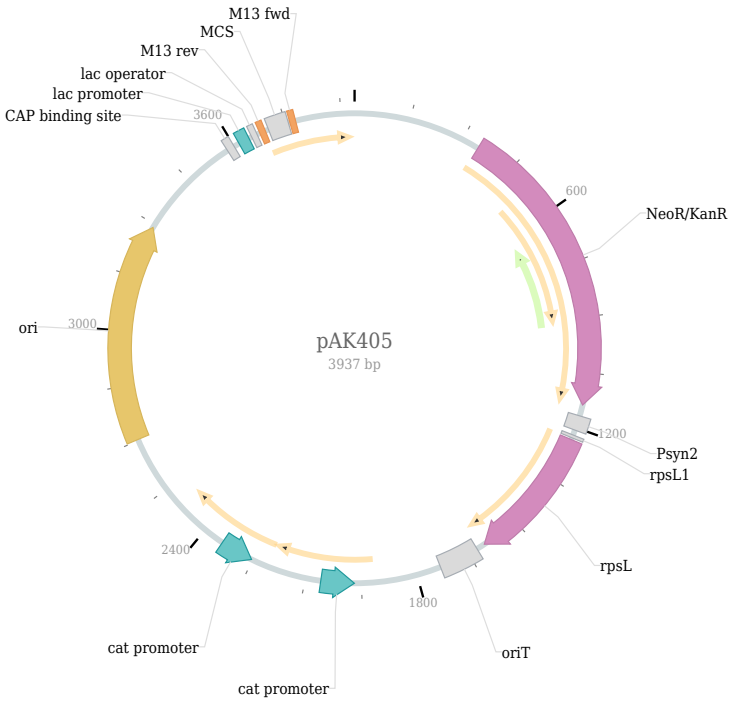
pAK405

Vector ID	V009536
Antibiotic Resistance	Kanamycin
Length	3937 bp
Vector Type	Cloning vector

Product Information

Replication Origin	ori
Source/Author	Kaczmarczyk A, Vorholt JA, Francez-Charlot A.
Copy Number	High copy number
Growth Strain(s)	DH10B
Comment	pAK405, a suicide vector enabling markerless gene deletion in sphingomonads. It carries an RP4 oriT for conjugal transfer, kanamycin resistance for selection, and rpsL1 for streptomycin counterselection. Through successive allelic exchanges, target genes are cleanly deleted without leaving antibiotic markers, yielding unmarked mutants.

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 ℃.