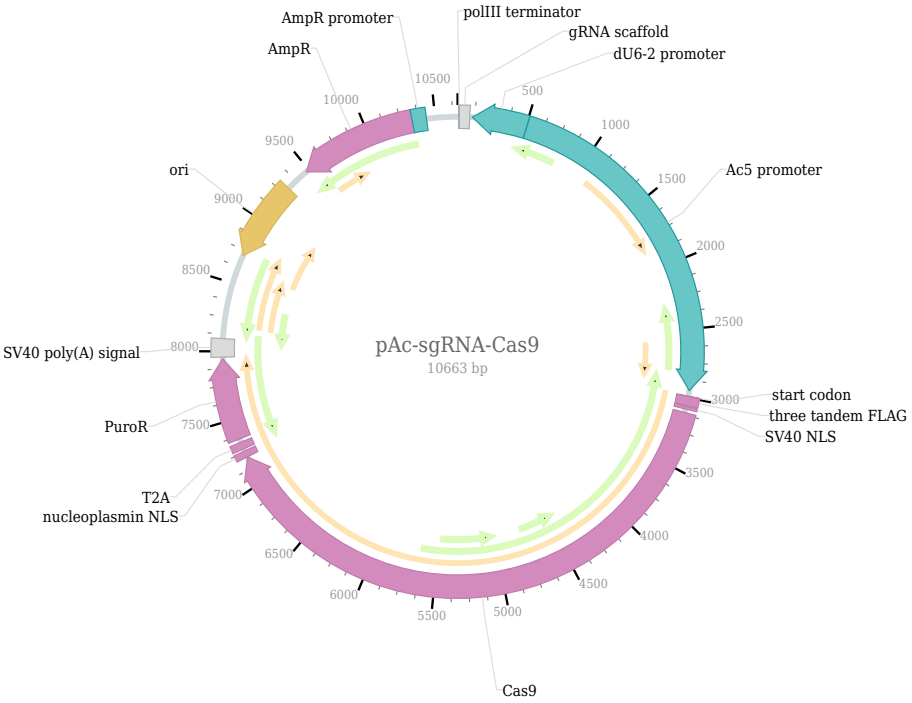
pAc-sgRNA-Cas9

Vector ID	V012308
Antibiotic Resistance	Ampicillin
Length	10663 bp
Vector Type	CRISPR Plasmids

Product Information

Replication Origin	ori
Source/Author	Bassett AR, Tibbit C, Ponting CP, Liu JL.
Copy Number	High copy number
Promoter	Ac5
Comment	This pAc-sgRNA-Cas9 CRISPR vector for Drosophila S2 cells carries two distinct promoters for separated functional transcription units. The dU6 promoter, relying on RNA polymerase III, constitutively transcribes target sgRNA and requires a guanine as its transcription start base. The strong actin5C (Ac5) Pol II promoter drives bicistronic expression of human codon-optimized Cas9 and puromycin resistance gene via a viral 2A peptide. Puromycin selection enriches Cas9-positive cells to greatly boost targeted mutagenesis and homologous recombination efficiency in fly cell lines.

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 ℃.