# pgRNA-bacteria

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| **Vector ID** | V001091 |
| **Antibiotic Resistance** | Ampicillin |
| **Length** | 2584 bp |
| **Vector Type** | Bacterial Expression, CRISPR |

## Product Information

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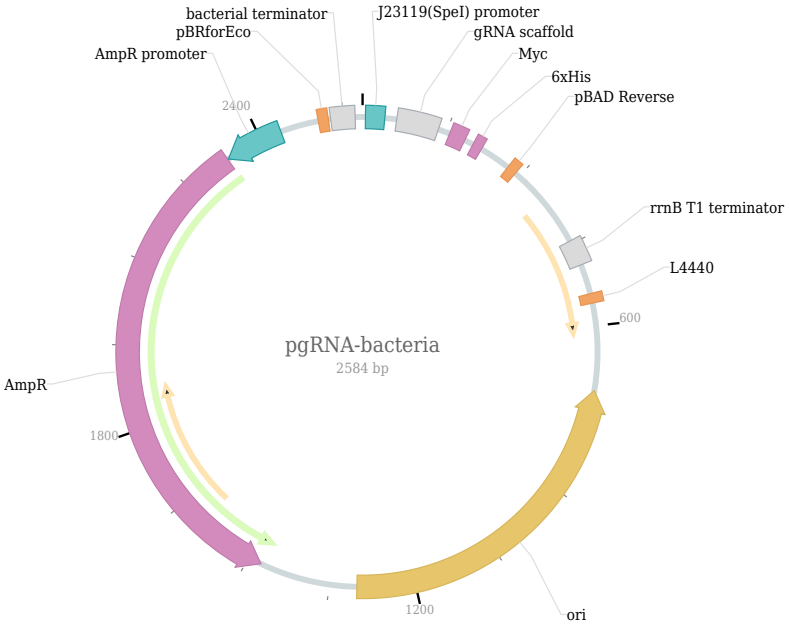
| **Replication Origin** | ori |
| **Copy Number** | High Copy |
| **Promoter** | J23119(SpeI) |
| **Cloning Method** | Restriction Enzyme |
| **Growth Strain(s)** | DH5α |
| **Comment** | pgRNA-bacteria is a high-copy bacterial plasmid created by the Qi lab to express customizable S. pyogenes sgRNA for CRISPRi in strains like E. coli. It uses the constitutive J23119 promoter to transcribe sgRNA with a Cas9-binding scaffold and terminator, carrying ampicillin resistance for selection. When paired with pdCas9-bacteria encoding catalytically dead dCas9, it forms a complete CRISPRi toolkit to reversibly repress target bacterial genes without genome cleavage. This vector enables single or multiplex gene knockdown with minimal off-target effects for bacterial transcriptional regulation research. |

## 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 ℃.