# pBbdCas9S

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| **载体编号 Vector ID** | V017033 |
| **抗性 Antibiotic Resistance** | Streptomycin |
| **长度 Length** | 10691 bp |
| **载体类型 Vector Type** | Gene knockout |
| **宿主 Host** | E. coli |

## 产品信息

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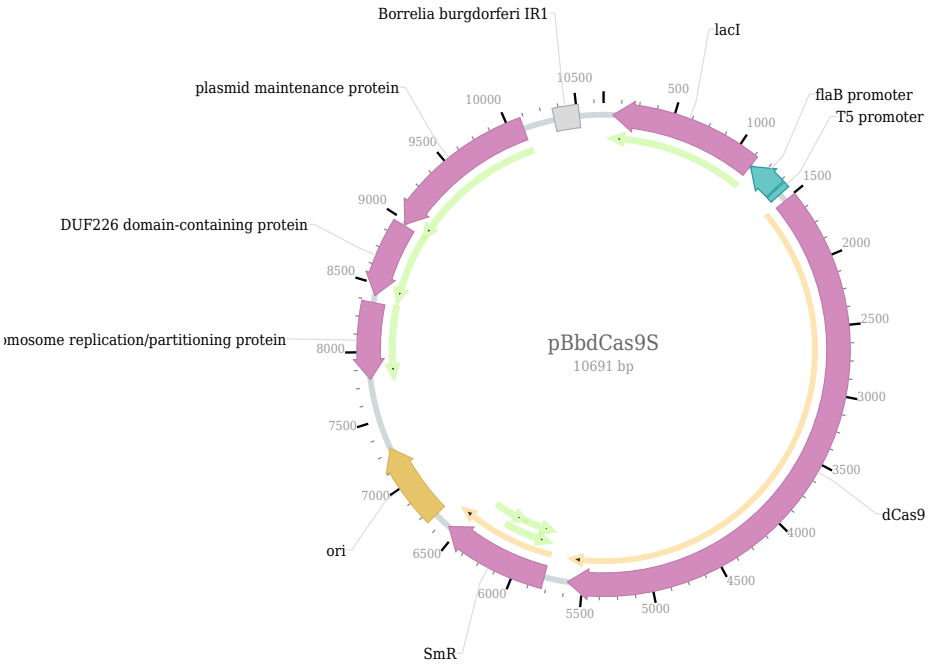
| **复制子 Replication Origin** | ori |
| **启动子 Promoter** | T5 |
| **培养菌株 Growth Strain(s)** | stbl3 |
| **培养温度 Growth Temperature** | 37℃ |
| **备注 Comment** | pBbdCas9S is an all-in-one IPTG-inducible CRISPRi shuttle vector designed for Borrelia burgdorferi, carrying streptomycin/spectinomycin resistance and a dcas9-lacI expression cassette under PQE30 promoter. It enables one-step transformation to silence target genes by inserting customized sgRNA fragments, achieving over 95% transcriptional repression upon 0.1 mM IPTG induction. Mutated variants like pBbdCas9S(RBSmut) and pBbdCas9S(-10TC) are derived to reduce leaky dCas9 expression without inducer. This plasmid works in both E. coli and infectious B. burgdorferi strains for essential gene functional analysis. |

## 质粒图谱



## 复溶方法

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 ℃.