# CRISPRoff-v2.1

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|---|---|
| **Vector ID** | V007493 |
| **Antibiotic Resistance** | Ampicillin |
| **Length** | 11885 bp |
| **Vector Type** | Mammalian Expression |

## Product Information

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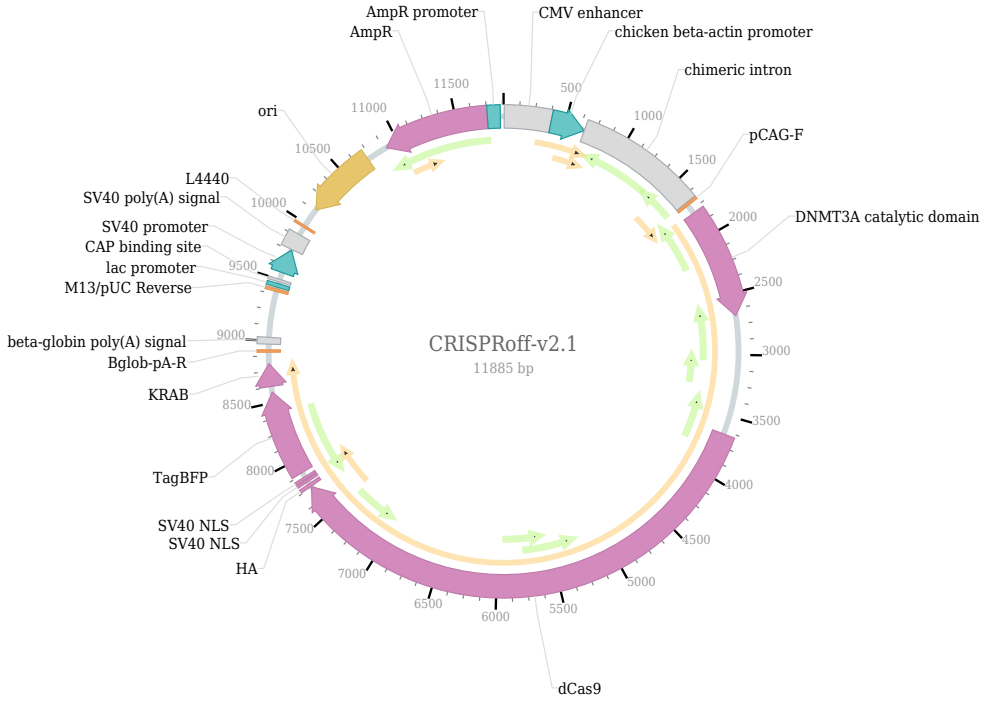
| **Replication Origin** | ori |
| **Copy Number** | High Copy |
| **Promoter** | CAG |
| **Cloning Method** | Gibson Cloning |
| **5' Primer** | ggcaaagaattctgcagtcg |
| **3' Primer** | ccaccaccttctgataggc |
| **Growth Strain(s)** | DH10B |
| **Growth Temperature** | 37℃ |
| **Comment** | CRISPRoff-v2.1 is an engineered plasmid vector for epigenetic silencing without DNA cleavage. It uses a dCas9 fusion protein (dCas9-DNMT3A/DNMT3L) to deposit DNA methylation marks, enabling stable, heritable gene repression across cell divisions. Version 2.1 features optimized efficiency and reversibility via CRISPRon. Ideal for long-term gene function studies and therapeutic development (e.g., Alzheimer's disease by targeting Tau protein) |

## 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 ℃.