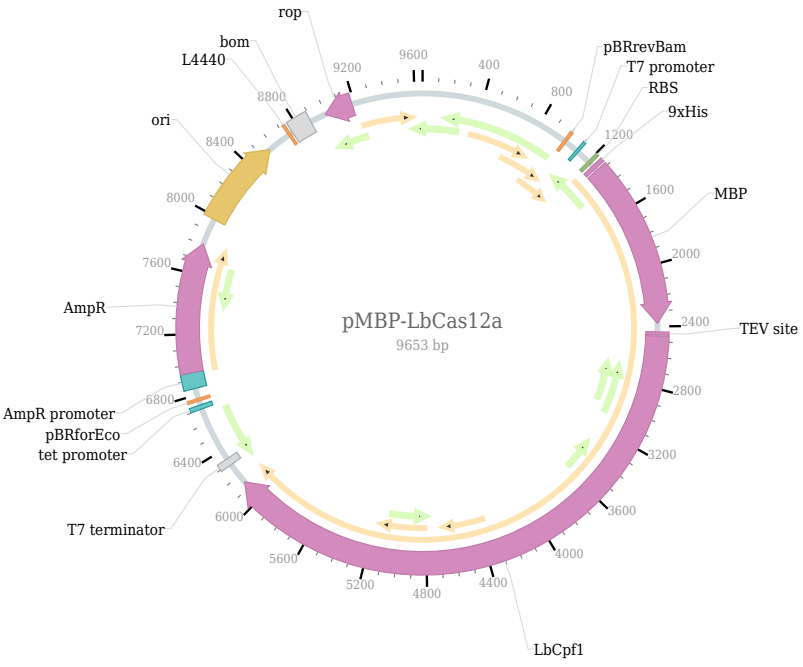
pMBP-LbCas12a

Vector ID	V001402
Antibiotic Resistance	Ampicillin
Length	9653 bp
Vector Type	Bacterial Expression

Product Information

Replication Origin	ori
Source/Author	Jennifer Doudna
Copy Number	High Copy
Promoter	tet
Cloning Method	Gibson Cloning
5' Primer	GATGAAGCCCTGAAAGACGCGCAG
3' Primer	CTA GTT ATT GCT CAG CGG T
Growth Strain(s)	DH5alpha
Growth Temperature	37℃
Comment	The pMBP-LbCas12a plasmid is designed for high-yield expression and purification of the Lachnospiraceae bacteriumCas12a protein. It utilizes an MBP (maltose-binding protein) fusion tag to improve soluble protein yield and a His-tag for purification via nickel affinity chromatography. This vector is widely used to produce Cas12a for CRISPR-based genome editing and diagnostic applications. Ampicillin: 100 μg/mL

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 ℃.