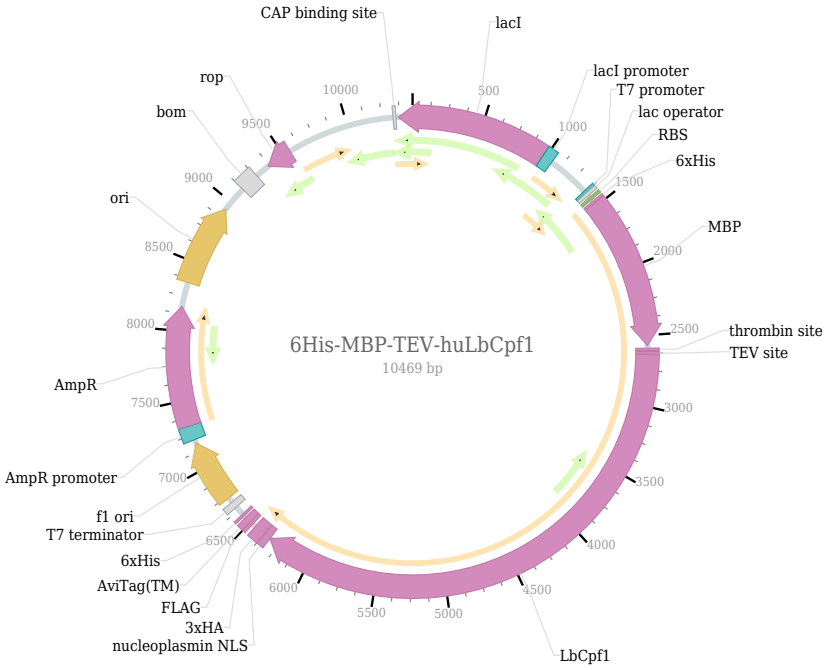
6His-MBP-TEV-huLbCpf1

载体编号 Vector ID	V007218
抗性 Antibiotic Resistance	Ampicillin
长度 Length	10469 bp
载体类型 Vector Type	Bacterial Expression

产品信息

复制子 Replication Origin	ori
来源 Source/Author	Feng Zhang
拷贝数 Copy Number	Low Copy
培养菌株 Growth Strain(s)	DH10B
培养温度 Growth Temperature	37℃
备注 Comment	The 6His-MBP-TEV-huLbCpf1 designed for expressing the huLbCpf1 gene (a CRISPR-Cas12a system nuclease) in Escherichia coli. It features an N-terminal dual-affinity tag consisting of a hexahistidine tag (6xHis) and a maltose-binding protein (MBP) tag, separated from the huLbCpf1 gene by a tobacco etch virus (TEV) protease cleavage site (ENLYFQ/G). This design allows for high-yield protein expression, enhanced solubility facilitated by MBP, and efficient purification via affinity chromatography. The TEV protease site enables precise cleavage to remove the affinity tags, yielding a tag-free, functional huLbCpf1 protein for downstream applications like genome editing.

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 ℃.