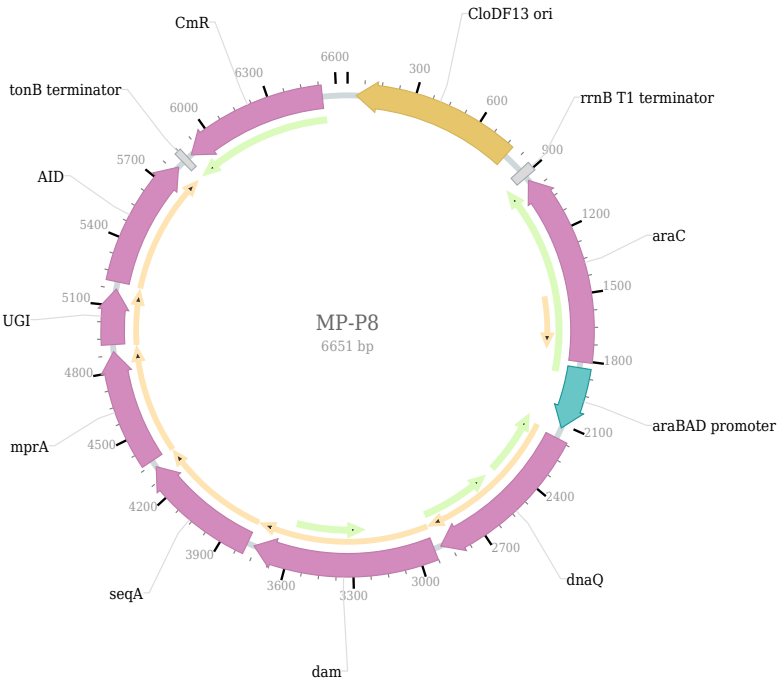
MP-P8

Vector ID	V016992
Antibiotic Resistance	Chloramphenicol
Length	6651 bp
Vector Type	Protein expression
Host	E. coli

Product Information

Replication Origin	CloDF13 ori
Promoter	araBAD
Growth Strain(s)	DH5a
Growth Temperature	37℃
Comment	MP-P8 is a potent inducible mutagenesis vector published in Nature Communications 2015. Driven by the arabinose-responsive P_BAD promoter, its six mutator genes simultaneously impair DNA proofreading, mismatch repair, base excision repair and intracellular dNTP homeostasis. Compatible with all E. coli strains and M13 bacteriophage, it serves as the gold-standard tool for rapid antibiotic resistance evolution and phage-assisted continuous evolution (PACE). It is highly recommended that all MP-carrying strains be maintained in rich media supplemented by 25 mM glucose. The expression of the MP-borne mutators is regulated by the E. coli arabinose pBAD promoter, which is efficiently repressed at high concentrations of glucose.

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 ℃.