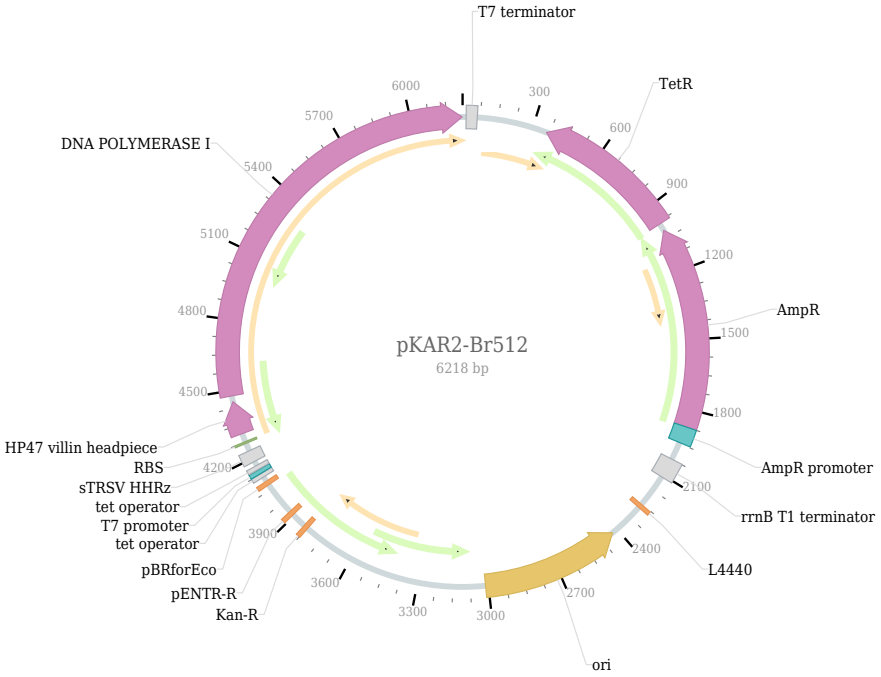
pKAR2-Br512

Vector ID	V006626
Antibiotic Resistance	Ampicillin
Length	6218 bp
Vector Type	Bacterial Expression

Product Information

Replication Origin	ori
Copy Number	High Copy
Promoter	T7, tetPA
Cloning Method	Restriction Enzyme
5' Primer	GCATCGTCTCATCGGTCTCATATGCACCATCATCACGGTCATC
3' Primer	ATGCCGTCTCAGGTCTCAGGATCCTTATTACTTGGCGTCATACCAGGTG
Comment	pKAR2-Br512 is an in-house T7-driven E. coli expression plasmid for producing engineered Br512 polymerase. It encodes a fusion protein combining 8×His-tag, HP47 villin headpiece and Bst-LF large fragment. Transformed into BL21(DE3), it yields soluble Br512 with enhanced folding, solubility and reverse transcriptase activity. The purified enzyme serves as a superior low-cost substitute for commercial Bst 2.0 in SARS-CoV-2 RT-LAMP diagnostics.

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 ℃.