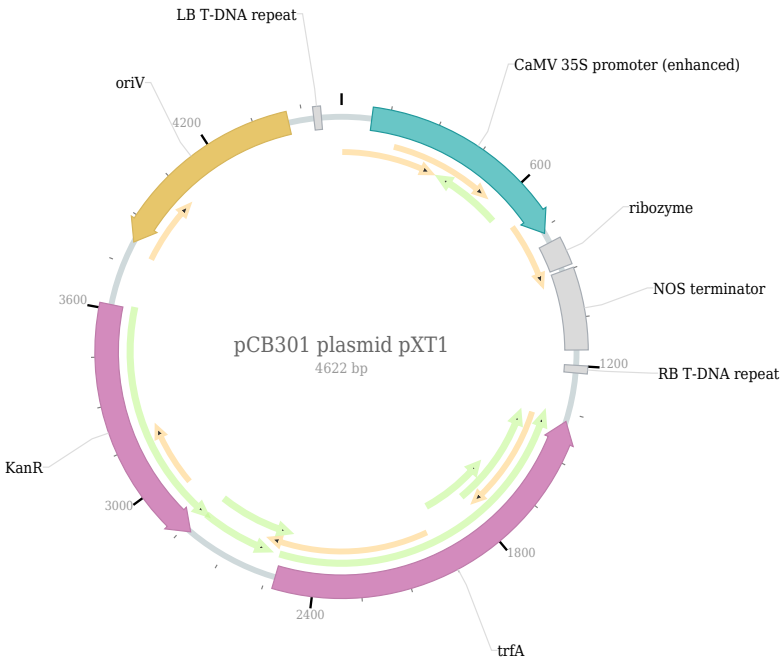
pCB301 plasmid pXT1

Vector ID	V008700
Antibiotic Resistance	Kanamycin
Length	4622 bp
Vector Type	Plant transformation vector

Product Information

Replication Origin	oriV
Source/Author	Tao X, Yao M, Hu Z, Wei Q, Feng Z.
Copy Number	Low copy number
Growth Strain(s)	Stbl3
Growth Temperature	37℃
Comment	RK2 has a low copy-number (around 4–8 copies per chromosome in Escherichia coli) and is stably maintained in diverse Gram negative bacterial species. It is a conjugative plasmid containing oriT in its tra region and an additional trb region encoding a Type IV Secretion system (T4SS) that produces the essential pilus . The other essential backbone functions are a vegetative replication origin (oriV) and a gene encoding a replication initiation protein (trfA), which is regulated by the products of a dual partitioning and central control region (ccr) encoding korA, incC and korB . The broad-host-range and selftransmissibility make RK2 a suitable vector for genetic manipulations and a very good model to study plasmids in bacteria. Examination of RK2 replication intermediates and deletion analysis located the origin required for the initiation of the plasmid vegetative replication, oriV, while trfA, which encodes the essential trans-acting Rep protein, is located upstream from oriV.

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 ℃.