lucigen.com/cloning

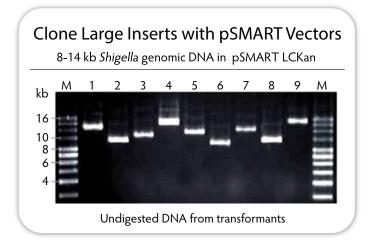


# CloneSmart® Cloning Kits

High efficiency cloning with ultra-low background

- · Clone individual targets or libraries with high efficiencies
- · Stabilize toxic inserts with optimized vector design
- Choose high or low copy number
- · Save time with convenient ligation-ready cloning vectors

Facilitate your downstream applications with fast, high efficiency cloning tools. pSMART vectors are designed to optimize your cloning projects for sequencing, mutagenesis or other downstream applications.



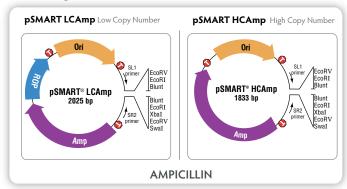
**Figure 1.** Purified plasmid DNA from pSMART LCKan transformants containing 8-14kb *Shigella* genomic DNA inserts.

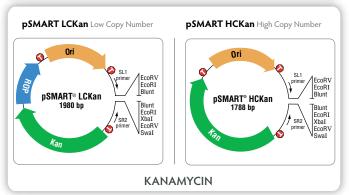
Products	Size	Cat. No.	Price
CloneSmart HCAmp Blunt Cloning Kit -	20 rxns	40041-2	\$246.00
	40 rxns	40041-4	\$438.00
CloneSmart HCKan Blunt Cloning Kit	20 rxns	40704-2	\$246.00
	40 rxns	40704-4	\$438.00
CloneSmart LCAmp Blunt Cloning Kit	20 rxns	40300-2	\$292.00
	40 rxns	40300-4	\$517.00
CloneSmart LCKan Blunt Cloning Kit -	20 rxns	40821-2	\$292.00
	40 rxns	40821-4	\$517.00

#### COMPONENTS

CloneSmart Blunt Cloning Kits contain: Vector Premix, CloneSmart DNA Ligase, Positive Control Insert DNA, Sequencing Primers, and a complete protocol. Kits have been optimized for use with E. cloni Electrocompetent and Chemically Competent Cells, available separately.

# Diagram of pSMART® Vectors





### Legend

- Ori origin of replication
- Amp Ampicillin resistance gene
  Kan Kanamycin resistance gene
- ROP Repressor of primer (lowers plasmid copy number)
- **Terminator** Approximate location

#### Generate Libraries from Nanograms of DNA

Avoid high background and tedious vector preparation steps with these high-efficiency cloning vectors. Each of the four pSMART plasmids are qualified to produce >99% recombinant clones in most cloning experiments, which means more positive clones from each ligation and no need for colony screening. The ultra-low background means libraries can be constructed from very small amounts of DNA.

## ${\bf Stabilize\ Inserts\ with\ Optimized\ pSMART\ Vector\ Design}$

All of the pSMART vectors include transcription terminators flanking a cloning site free of promoter sequences, creating a transcription- and translation-free cloning site. These features helps to stabilize inserts such as repeats, strong promoters, and sequences with strong secondary structure that are difficult to maintain in other systems. The small vector size (1.7-2.0 kb) makes cloning and downstream manipulation easier. For truly difficult sequences, choose one of the low copy vectors pSMART LCAmp or LCKan.



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