This is a cloning vector that allows mobilization into a wide range of Gram- and Gram+ bacteria. After mobilization, the plasmid can be maintained by integration into the host chromosome via homologous recombination. Excision of the intervening plasmid sequence by a double cross-over event can be facilitated by selection on medium containing 10% sucrose. The sacB gene has been modified to eliminate the HindIII and EcoRI sites in the coding region. This vector differs from pK18mobsacB (ATCC# 87097) only in the orientation of the polylinker.


**Designation:** pK19mobsacB plasmid in *E. coli* SCS110

**Distribution Host:** *Escherichia coli* SCS110

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### Propagation

1. Open vial according to instructions.
2. Aseptically add 0.3 to 0.4 mL of liquid medium to the freeze-dried pellet and mix well. Transfer 100 µL to a test tube containing 5 mL LB+ kanamycin (50 µg/mL). A loopful of culture can also be streaked on an agar plate of the same. Incubate cultures at 37°C.
3. Isolate DNA using standard plasmid preparation procedures.

**Growth Conditions**

- **Temperature:** 37°C
- **Medium**
  - ATCC Medium 1065 (see below) plus kanamycin (50 mcg/ml)
  - ATCC Medium 1065:
    - Tryptone (Difco 0123), 10.0 g
    - Yeast Extract (Difco 0127), 5.0 g
    - NaCl, 10.0 g
    - Distilled water, 1.0 L

**Construct size (kb):** 5.66

**Marker(s):** kanR,sacB

**Vector type:** plasmid

**Cloning sites:** HindIII SphI PstI XbaI SmaI EcoRI

**Construction:** pK19, pSUP102 (RP4 mob) sacB; the sacB gene was inserted into the pK19mob vector.

**Insert:** sacB

**Genome:** Bacillus subtilis

**Gene name:** levansucrase

**Insert end:** Ecl136II (modification: blunt ended)

**Insert size (kb):** 1.9

**Complete coding sequence:** Y

**Vector:** pK19mob

**Vector size (kb):** 3.76

**Type of vector:** plasmid

**Vector ends:** AsuII (modification: blunt ended)

**Host range:** *Escherichia coli*; *Salmonella* sp.; *Serratia* sp.

**Features (with orientation and location, if known):**

- Marker: kanR
- Marker: sacB (sucrose sensitivity)
- Other: oriT
- Other: oriV
- Insert detection: lacZ', MCS

**References and other information relating to this product are available online at [www.atcc.org](http://www.atcc.org).**

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**Restriction digests of the clone gave the following sizes** (in kb): EcoRI 5.6; HindIII 5.6; PstI 5.6.

-ATCC Staff
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

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