pAcGP67-C Baculovirus Transfer Vector

**PRODUCT INFORMATION**

Catalog Number: 554758

Contents: 5 µg in 50 µl

**DESCRIPTION**

The acidic glycoprotein gp67 (syn.: gp64) is the most abundant envelope surface glycoprotein of the *Autographa californica* nuclear polyhedrosis virus (AcNPV baculovirus), and is essential for the entry of baculovirus particles into susceptible insect cells. Since large amounts of this protein are secreted and anchored to the virus peplomer, its gene contains one of the most effective baculovirus-encoded signal sequences for protein secretion. Therefore, we have constructed baculovirus transfer vectors (pAcGP67-A, -B, -C) that contain the gp67 signal sequence in front of a multiple cloning site (5'-BamH I, Sma I/Xma I, Xba I or Nco I, EcoR I, Not I, Eag I, Pst I and Bgl II-3'). A gene of choice can be inserted in one of these cloning sites and the protein of interest will be expressed as a gp67 signal peptide fusion protein under the control of the strong baculovirus polyhedrin promoter. This strategy allows the forced secretion of otherwise non-secreted recombinant proteins which may be easily purified when serum-free insect culture medium, BD BaculoGold™ Max-XP Insect Cell Medium (Cat. No. 554761) is used. The transfer vector(s) should be preferentially used in conjunction with BD BaculoGold™ DNA (Cat. No. 554739).

**PREPARATION AND STORAGE**

The vectors were purified using a silicon bead matrix and dissolved in TE buffer (10 mM Tris-HCl, pH 7.5; 1 mM EDTA). Each vector should be stable for at least 2 years when stored at –20°C.

**HANDLING**

Amplify the plasmid DNA in *E. coli* strains (DH5α, HB101 or any other suitable strain) under ampicillin selection. Insert your gene of interest into a suitable restriction site that is in frame with the gp67 signal sequence. Do a co-transfection of the recombinant plasmid and BD BaculoGold™ Linearized Baculovirus DNA (Cat. No. 554739) using a susceptible insect cell line (e.g., Sf9 or Sf21) and identify recombinant viruses expressing your protein.

**REFERENCES**

**pAcGP67-C BACULOVIRUS TRANSFER VECTOR**

**pAcGP67-C**

9761 bp

unique sites underlined

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**gp67 Secretion Signal**

**Amp**

**HindIII** (1)

**PvuII** (9669)

**NdeI** (9546)

**ScaI** (8854)

**GsuI** (8461)

**AlwNI** (7894)

**PvuII** (7305)

**PvuII** (6874)

**HindIII** (6339)

**HindIII** (5303)

**SnaBI** (4938)

**HindIII** (4375)

**SnaBI** (4263)

**Amp**

**HindIII** (5303)

**ColEori**

**polyhedrin promoter**

**gp67 secretion signal sequence (underlined)**

**signal peptide cleavage site**

**gp67**

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**C**

**ATG** CTA CTA GTA AAT CAG TCA GAC CAA GGC TTC AAT AAG GAA CAC ACA GCC GCT GCA GAT CTG ATC CTT TCC TGG GAC CCG GCA AGA ACC...

**Gly** His Gly Ser Gly Ala Ala Ala Ala His Ser Ala Ala Asp Leu Trp Ile Pro...

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