

## Technical Data Sheet

**pAcGP67A Baculovirus Transfer Vector****Product Information**

**Material Number:** 554756  
**Size:** 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 (pAcGP67A, 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. 551411) is used. The transfer vector(s) should be preferentially used in conjunction with BD BaculoGold™ DNA (Cat. No. 554739).

**Preparation and Storage**

Store undiluted at -20°C.

The vectors were purified using a silicon bead matrix and dissolved in TE buffer (10 mM Tris-HCl, pH 7.5; 1 mM EDTA).

**Application Notes****Application**

Baculovirus	Routinely Tested
-------------	------------------

**Recommended Assay Procedure:**

Amplify the plasmid DNA in *E. coli* strains (DH5a, 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. (See vector map) Perform 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. Sequence information for vectors can be found on the BD Bioscience web site at [http://www.bdbiosciences.com/support/vector\\_sequences/](http://www.bdbiosciences.com/support/vector_sequences/). For detailed protocols refer to the Baculovirus Expression Vector System Manual, 6th edition on our web site at <http://www.bdbiosciences.com/pdfs/manuals/98-6088-1F.pdf>.

**Suggested Companion Products**

Catalog Number	Name	Size	Clone
554739	Linearized Baculovirus DNA	5 transfections	(none)
551411	Max-XP Serum-Free Insect Cell Medium	1 liter	(none)
560129	Transfection Kit	5 transfections	(none)

**Product Notices**

- Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.

**BD Biosciences**

[bdbiosciences.com](http://bdbiosciences.com)

United States 877.232.8995 Canada 888.259.0187 Europe 32.53.720.550 Japan 0120.8555.90 Asia Pacific 65.6861.0633 Latin America/Caribbean 55.11.5185.9995

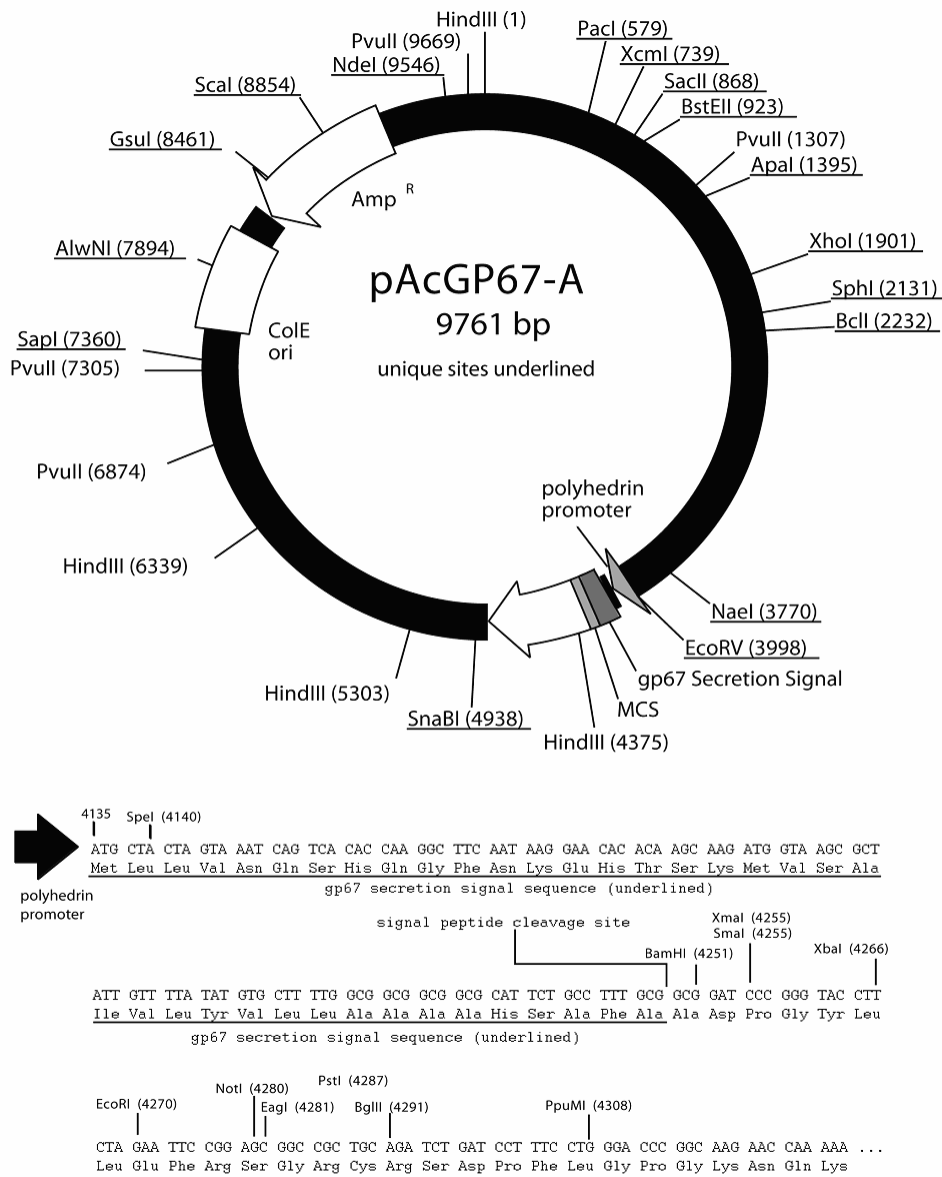
For country-specific contact information, visit [bdbiosciences.com/how\\_to\\_order/](http://bdbiosciences.com/how_to_order/)

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2008 BD





## References

- Sambrook J, Fritsch E, Maniatis T. *Molecular Cloning, 2nd Edition*. Cold Spring Harbor, New York: Cold Spring Harbor Laboratory Press; 1989.(Methodology)
- Stewart LM, Hirst M, Lopez Ferber M, Merryweather AT, Cayley PJ, Possee RD. Construction of an improved baculovirus insecticide containing an insect-specific toxin gene. *Nature*. 1991; 352(6330):85-88.(Biology)
- Whitford M, Stewart S, Kuzio J, Faulkner P. Identification and sequence analysis of a gene encoding gp67, an abundant envelope glycoprotein of the baculovirus *Autographa californica* nuclear polyhedrosis virus. *J Virol*. 1989; 63(3):1393-1399.(Biology)