Technical Data Sheet

pAcAB4 Baculovirus Transfer Vector

Product Information

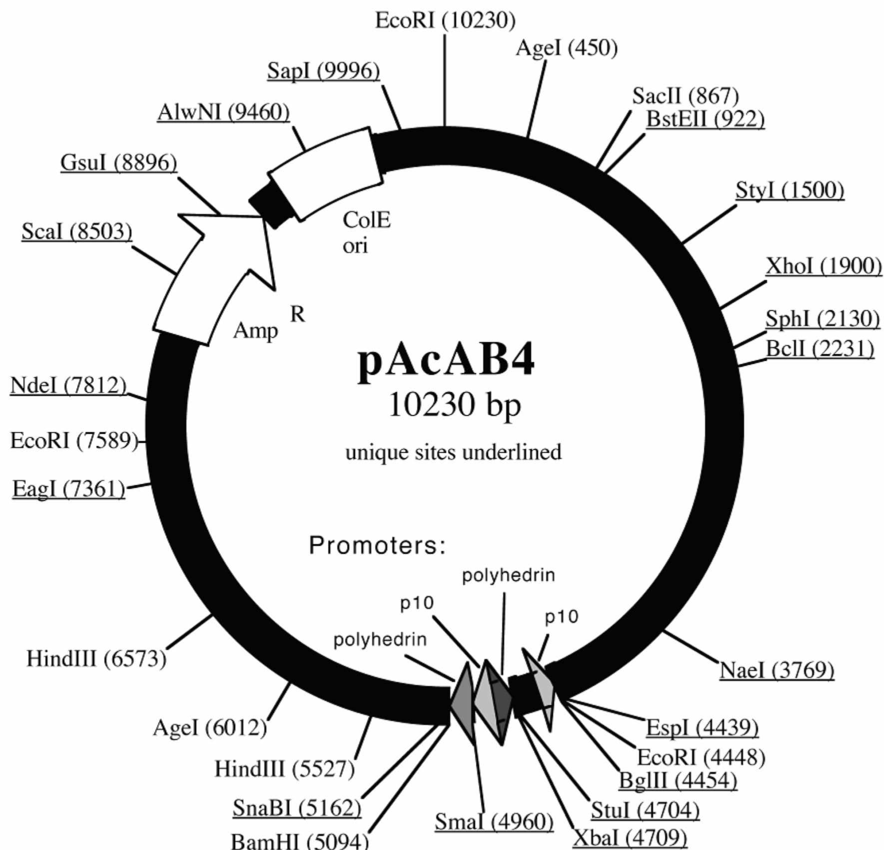
Material Number:	**554770**
Size:	5 µg in 50 µl

Description

The pAcAB4 vector is a 10.0 kb *Autographa californica* (AcNPV) polyhedrin locus-based vector that contains two copies of the AcNPV polyhedrin promoter and two AcNPV p10 promoters. Downstream of the first p10 promoter is a Sma I cloning site, followed by polyhedrin locus-derived termination sequences. Upstream of this, an inverted polyhedrin promoter has been inserted containing Xba I and Stu I as single cloning sites, followed by a second p10 promoter, a Bgl II insertion site and an SV40 termination sequence. Additionally, there is another polyhedrin promoter and BamH I cloning site downstream of the first p10 promoter. This vector allows simultaneous expression of four foreign genes during the very late phase of the baculovirus infection cycle. This transfer vector is best used in conjunction with BD BaculoGold™ Linearized Baculovirus DNA (Cat. No. 554739).

Preparation and Storage

Store undiluted at -20°C.
The pAcAB4 plasmid DNA has been prepared using silica-based beads and dissolved in TE buffer (10 mM Tris-HCl pH 7.5; 1 mM EDTA).



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Application Notes

Application

Baculovirus	Routinely Tested

Recommended Assay Procedure:

To express four genes of interest, clone the first gene into the Sma I cloning site to be expressed under p10 promoter control, the second into the Xba I or Stu I cloning site to be expressed under polyhedrin promoter control, the third into the Bgl II cloning site for p10 promoter control and insert the fourth gene of interest into the BamH I site for polyhedrin-driven gene expression. Inserts containing the gene of choice must contain an ATG translation initiation sequence. Transform the plasmid DNA into competent *E. coli* strains (DH5α, HB101 or any other suitable strain) under ampicillin selection. Amplify the plasmid DNA in bacteria under ampicillin selection and purify using standard protocols. Perform a co-transfection of the purified recombinant plasmid and linearized baculovirus DNA (BD BaculoGold™ DNA, Cat. No. 554739) using a susceptible insect cell line (e.g., Sf9 or Sf21) and identify recombinant viruses expressing your protein.

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)

Product Notices

1. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Sambrook J, Fritsch E, Maniatis T. *Molecular Cloning, 2nd Edition.* Cold Spring Harbor, New York: Cold Spring Harbor Laboratory Press; 1989.(Methodology)

Belyaev AS, Roy P. Development of baculovirus triple and quadruple expression vectors: co-expression of three or four bluetongue virus proteins and the synthesis of bluetongue virus-like particles in insect cells. *Nucleic Acids Res.* 1993; 21(5):1219-1223.(Methodology)