



# BaculoDirect™ N-Term Baculovirus Expression System

The BaculoDirect™ Baculovirus Expression System is the fastest and easiest method for generation of recombinant baculovirus. By eliminating time-consuming steps and incorporating Gateway® Technology, the BaculoDirect™ System delivers results rapidly and conveniently.

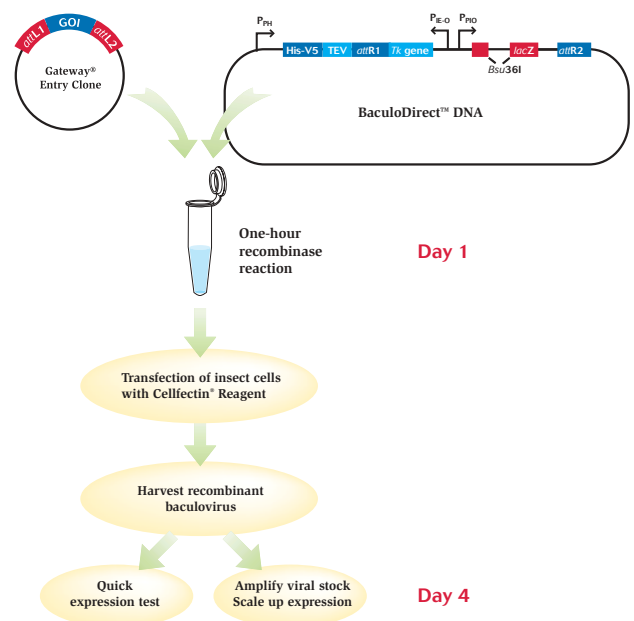
## Powerful expression of N-terminal tagged proteins

The BaculoDirect™ N-Term Expression System is designed for expression of recombinant proteins with an N-terminal tag. BaculoDirect™ N-Term Linear DNA includes:

- Strong polyhedrin promoter for high-level expression
- Thymidine kinase (TK) gene for negative selection of non-recombinant virus using ganciclovir
- *lacZ* gene for quick determination of recombinant virus purity
- N-terminal V5 epitope tag and polyhistidine (6xHis) sequence for easy detection and purification of recombinant proteins
- TEV protease recognition site following the V5 epitope for cleavage of the N-terminal tag following purification

The BaculoDirect™ Linear DNA makes cloning, expression, detection, and purification fast and easy (Figure 1).

Figure 1 - Protein expression using the BaculoDirect™ N-Term Expression System

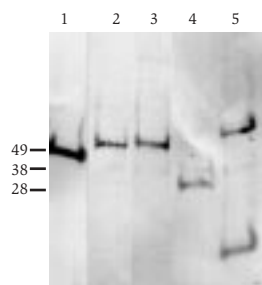


## Compatible with Ultimate™ ORF Clones for fast and easy expression

The BaculoDirect™ N-Term Expression System is readily used with Invitrogen™ Ultimate™ ORF Clone Collection. These clones are provided in Gateway® entry vectors and are easily moved into the BaculoDirect™ N-Term Linear DNA using a one-hour LR recombination reaction (Figure 2). The Ultimate™ ORF Collection features

thousands of human and mouse clones, which are full-insert sequenced and guaranteed to match the amino acid sequence in GenBank. The combination of the BaculoDirect™ N-Term Expression System and the Ultimate™ ORF Clone Collection streamlines your research and gets you to downstream analysis faster.

Figure 2 - Expression of Ultimate™ ORF Clones using the BaculoDirect™ N-Term Expression System



Ninety-five Ultimate™ ORF human clones were recombined into the BaculoDirect™ N-Term Linear DNA using a one-hour LR recombination reaction. A portion of the LR reaction was then used to transfect  $4.8 \times 10^4$  cells using Cellfectin® Reagent. Cells were allowed to grow for 3-4 days. Supernatants from each well were transferred to a new plate and lysed with 100  $\mu$ l NuPage® LDS Sample Buffer. Twenty microliters of each protein sample was separated on NuPage® Bis-Tris Gels. Expression was detected in 69 of 95 samples (72%).

## Everything you need

Get started with your baculovirus expression. The BaculoDirect™ N-Term Expression and Transfection Kits contain the reagents you need for your expression work (Table 1). Call Invitrogen and order today.

Table 1 - Kit components

BaculoDirect™ N-Term Expression Kit	BaculoDirect™ N-Term Transfection Kit
BaculoDirect™ N-Term Linear DNA	BaculoDirect™ N-Term Linear DNA
Recombination/expression control	Recombination/expression control
Cellfectin® Reagent	Cellfectin® Reagent
Ganciclovir	Ganciclovir
LR Clonase™ Enzyme Mix	
Frozen Sf9 Cells in Grace's Medium	
Grace's Insect Cell Culture Medium, Unsupplemented	

## Ordering information

Product	Quantity	Cat. no.
BaculoDirect™ N-Term Expression Kit	5 reactions	12562-054
BaculoDirect™ N-Term Transfection Kit	5 reactions	12562-062



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