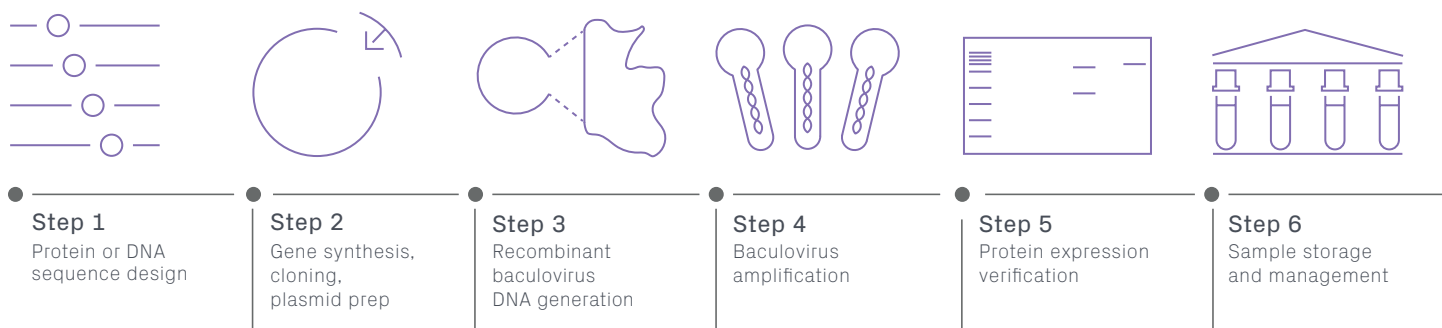


# Gene-to-Baculovirus Solutions

Azenta Life Sciences now offers an expanded solution for a gene-to-baculovirus synthesis and expression. The updated gene-to-virus workflow, combined with Azenta Life Sciences sample management services, provides a complete end-to-end solution designed with speed and convenience in mind. To achieve high gene delivery efficacy and yield reproducible co-transduction and expression of multi-component complexes at the right stoichiometry, we also offer these services in the BacMam system. Customers can choose their preferred deliverables (plasmids, baculovirus/BacMam stocks, BIIcs, expression reports, etc.) based on their projects' need.

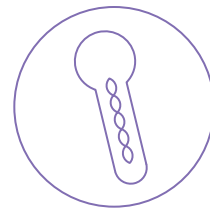
In addition, as part of the Azenta Life Sciences family of companies, our sample management services provide sample storage options for your valuable assets to help maximize their utility, now and in the future.

## Azenta Life Sciences Gene-to-Virus Workflow



### Pick Your Expression System:

DNA Synthesis Services	Gene-to-Baculovirus for Insect Expression System	Gene-to-BacMam for Mammalian Expression System
<ul style="list-style-type: none"> <li>• Azenta Life Sciences proprietary <b>codon optimization</b></li> <li>• <b>DNA synthesis</b> of any length or complexity</li> <li>• <b>Custom cloning</b> into your choice of vector</li> <li>• <b>Plasmid prep</b> from mini to giga scale</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Baculovirus generation</b> and preparation of high-titer virus stock</li> <li>• Infection of <b>insect cells</b> for protein expression</li> <li>• <b>Protein expression verification</b> by Western Blot</li> <li>• <b>Sample storage and management</b> by Azenta Life Sciences</li> </ul>	<ul style="list-style-type: none"> <li>• <b>BacMam baculovirus</b> high-titer stock generation</li> <li>• <b>Protein expression verification</b> by Western Blot</li> <li>• <b>Sample storage and management</b> by Azenta Life Sciences</li> </ul>



# Gene-to-Baculovirus Solutions

## Azenta Life Sciences Gene-to-Virus Expression Systems

### Gene-to-Baculovirus for Insect Expression System

Recombinantly-modified baculovirus containing a gene of interest is transfected in insect cells.

#### Deliverables:

- Recombinant bacmid with synthetic gene of interest
- High-titer baculovirus stock
- BIICs (TIPS) – baculovirus infected insect cells
- Insect cells pellet or superannuant harboring target protein
- Expression verification report

#### Advantages:

- Accommodate large or multiple genes
- Ability to provide post-translational modifications
- Not dependent on large-scale DNA prep

### Gene-to-BacMam for Mammalian Expression System

BacMams are baculoviruses containing a mammalian expression cassette for gene delivery and expression in mammalian cells.

#### Deliverables:

- Expression construct in enhanced BacMam vector
- High-titer BacMam baculovirus stock
- Expression verification report

#### Advantages:

- High gene delivery efficiency, even for large DNA cargo
- Reproducible co-transduction and expression of multi-component complexes at desired stoichiometry
- Mammalian expression, but not dependent on large-scale DNA prep

## Features and Benefits

### Complete Service Chain:

- Simplify your project management with a single provider for all services
- Fast turnaround time
- Ph.D. scientists to support every step of your project
- Sample biobanking available for long-term storage and inventory

### US-Based Production:

- US-based baculovirus services
- US-based gene synthesis available (optional)
- Cloning into optimized BacMam vector

