



Chimeric Baculovirus-AAV Vectors

VectorBuilder offers cloning and packaging services for chimeric baculovirus-AAV vectors, enabling highly efficient large-scale production of recombinant AAV particles for preclinical and clinical stage gene therapy applications.

Highlights

- Produced in high-density Sf9 suspension cell culture, thereby making it highly scalable
- High viral titers can be achieved when produced using our packaging services
- Baculovirus-based AAV packaging available for serotypes 1, 2, 5, 6, 8 and 9
- Purified by CsCl gradient ultracentrifugation and subjected to systematic QC tests
- Can be handled under minimal biosafety conditions

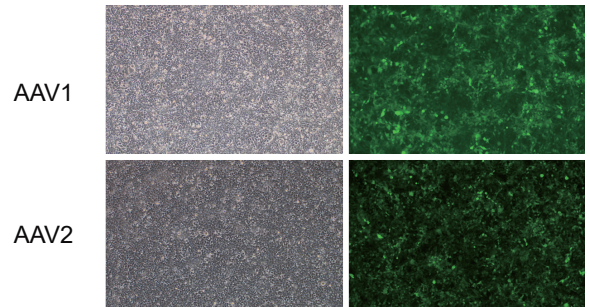


Figure 1. 293T cells were transduced with EGFP expressing, baculovirus-based AAV1 and AAV2 at MOI 10000. Magnification: 100x. Left: bright field. Right: GFP

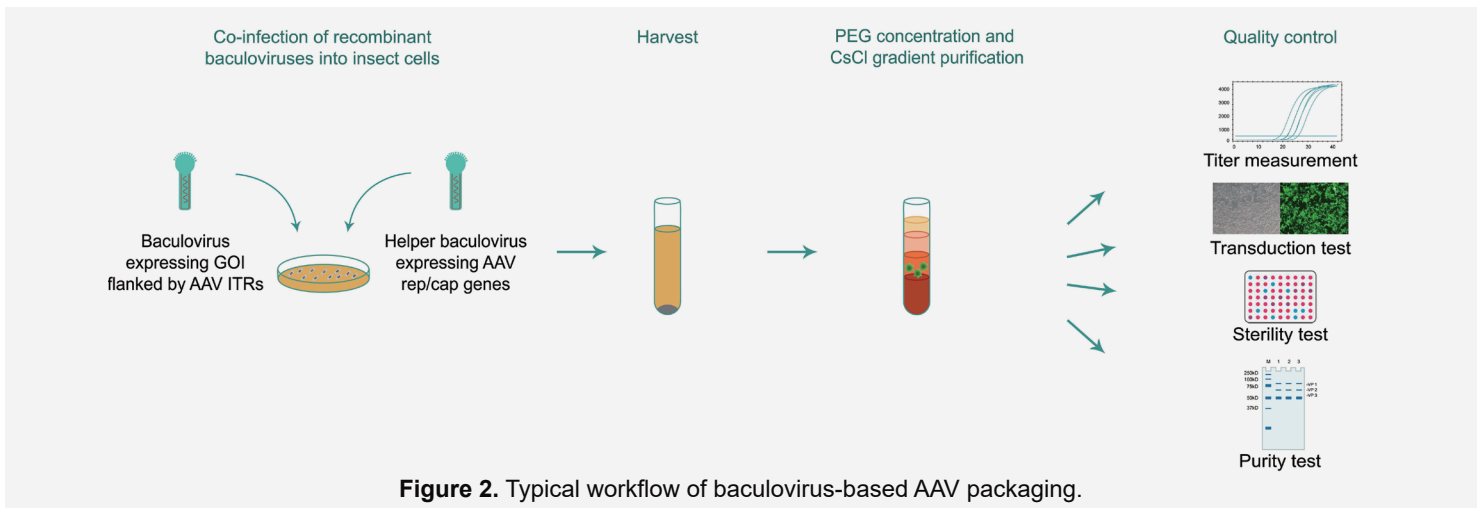


Figure 2. Typical workflow of baculovirus-based AAV packaging.

Additionally, we offer conventional **triple transfection-based AAV** packaging for serotypes 1, 2, 3, 4, 5, 6, 6.2, 7, 8, 9, rh10, DJ, DJ/8, PHP.eB, PHP.S, AAV2-retro, AAV2-QuadYF and AAV2.7m8. The table below highlights the key differences between triple transfection-based AAV and baculovirus-based AAV to help you select the right product for your project.

	Triple transfection-based AAV	Baculovirus-based AAV
Production process	Co-transfection of AAV transfer plasmid, AAV rep-cap plasmid and helper plasmid encoding adenovirus genes into packaging cells	Co-infection of recombinant baculovirus expressing GOI flanked by AAV ITRs and helper baculovirus expressing AAV rep/cap genes into insect cells
Production cell line	Adherent HEK293T cell culture-based	Serum-free, Sf9 suspension cell culture-based
Scalability	Can be scaled up to >10 ¹³ GC/ml	Can be scaled up to >5x10 ¹³ GC/ml
Production time	From 6-12 days, excluding vector cloning	From 35-49 days, excluding vector cloning
Safety	Safe for in vivo applications	Improved biosafety due to the inability of baculoviruses to infect mammalian cells
Applications	Mostly research-grade applications and for pre-clinical studies in small animals	Mostly large animal studies and human clinical trials