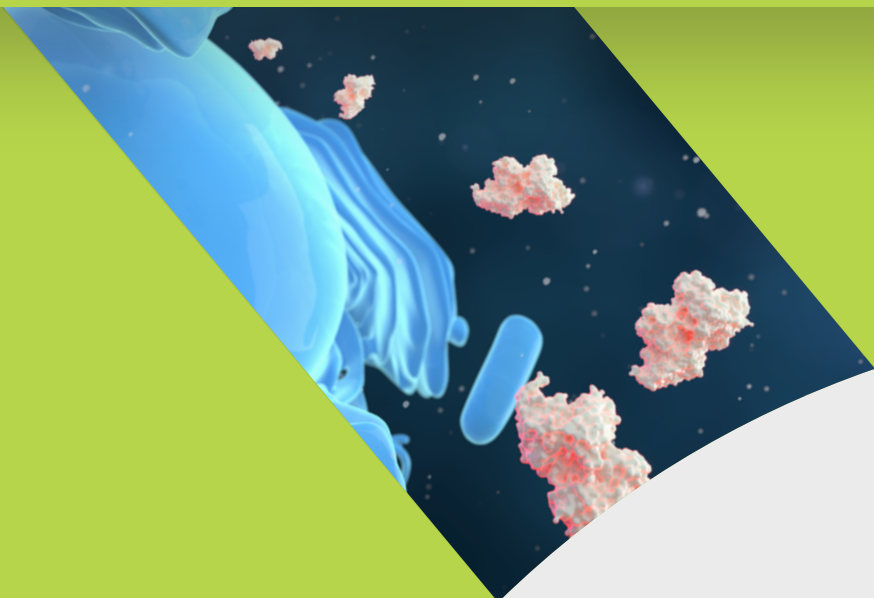




# Protein

DESIGN AND MANUFACTURE



**Innovative Science.  
Consistent Biologics.  
Experienced Partner.**

**Aldevron makes high quality  
proteins supporting:**

Gene Editing  
Recombinant Antibodies  
Therapeutics  
Diagnostics  
Cell Editing  
Custom Enzymes  
Reagents



# Aldevron makes the highest quality biologics.

Our protein production capabilities range from parallel screening of several constructs, through process development optimization, to scale-up manufacturing in *E. coli*, insect and mammalian cell lines. We have experience producing thousands of different proteins.

We start each project by defining goals, identifying potential risks, determining if we transfer existing protocols or if we are developing a new method. Next we identify risks and engineer a solution to meet any required specifications. Your dedicated Aldevron team is responsive, has extensive technical experience and expertise, and provides a strong project management approach insuring a successful outcome. We are ready to be your trusted, long-term partner.

## *E. coli* Fermentation

Aldevron offers on-site fermentation services to support development, manufacturing and transition to cGMP production.

We can adjust fermentation to meet your requirements from small-scale for optimization experiments, through high-volume batch and fed-batch fermentation. Aldevron clients can transfer their protocols or utilize our fermentation scientists to guide development and optimization.

Our equipment includes:

- C4 X 1L bioreactor systems
- 2 x 20L fermenters
- 2 x 200L fermenters
- 1 x 1000L fermenter

## Recombinant Antibody

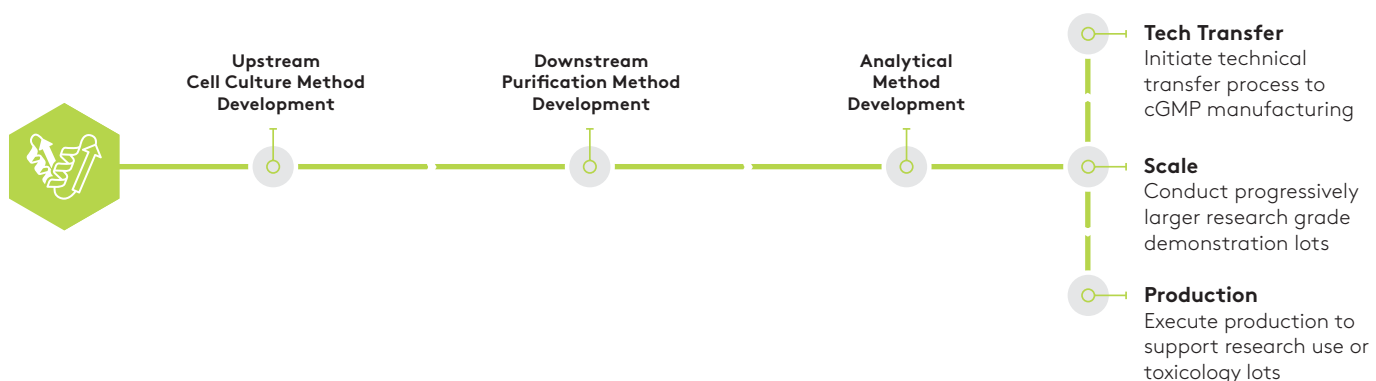
Antibody production is available for full-length IgG, antibody fusions and bi-specific, among other unique formats.

Services include:

- Antibody sequencing, construct options and gene synthesis
- Expression verification and screening
- Transient mammalian expression
- Affinity, SEC and IEX
- Delivery of low-endotoxin (LAL) and highly monomeric product (aSEC)
- Parallel processing
- Scaling and processing hybridoma and stable cell lines

## Development Process

We have a dedicated, experienced team of project managers and senior scientists to create a plan and guide research grade development work, ensuring that methods are suitable for final manufacturing, quality grade and application. Once development is complete, clients may elect to scale lots, initiate technical transfer or execute production.





## Clinical and Commercial Manufacturing

Aldevron provides timely and cost-effective solutions to customize cGMP and GMP-Source® (GMP-S) protein manufacturing in *E. coli*. GMP-S is a cost effective alternative to GMP. Our GMP service provides the highest quality oversight, process control and can support any application.

Stages of manufacturing:

- Master/working cell bank production
- Engineering run
- Column chromatography purification
- Aseptic fill/finish

### The Aldevron Process

	Research Grade	Research Grade+	GMP-Source®	cGMP
Gene synthesis & cloning	✓	✓	✓	✓
Expression method development	✓	✓	✓	✓
Chromatography method development	✓	✓	✓	✓
Standard QC tests	✓	✓	✓	✓
Certificate of Analysis (CoA)	✓	✓	✓	✓
TSE/BSE statement		✓	✓	✓
Custom QC development		✓	✓	✓
Manufacturing Summary Report (MSR)			✓	✓
Validated QA oversight			✓	✓
Process control				✓
Change control				✓
Project-specific master batch records				✓
ISO classified suites				✓
Environmental monitoring				✓
	Quickest option for high quality protein	Offers more documentation and custom QC	Faster, cost-effective cGMP alternative	Highest level of quality and customization

## Contact us about Aldevron Protein

4055 41<sup>st</sup> Avenue South, Fargo, ND 58104 USA

+1 (701) 297-9256 Toll-free (U.S. and Canada): +1 (877) 787-3362

Additional facility in Madison, WI

Visit: [aldevron.com/contact](http://aldevron.com/contact)



Since 1998, Aldevron has been a proud partner of research laboratories through the production of:

- Plasmid DNA at any scale, with fast turnaround times
- Proteins in bacterial, insect and mammalian expression systems
- mRNA to your specifications using a robust and scalable process

Aldevron supports research-use production through commercialization.