

AutovaxID[®]



- Flexible, small-scale to pilot-scale bioreactor
- Research, diagnostic and therapeutic uses
- Produce mAbs, recombinant proteins or virus
- Culture suspension or adherent cell lines
- Simultaneously produce 1, 2 or 3 products
- 80L fed-batch bioreactor equivalent

Single-Use

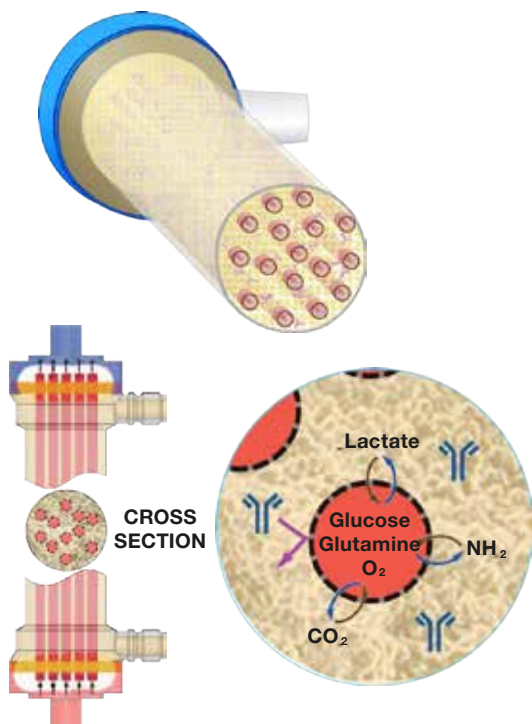
- Supplied sterile and ready to use
- No cleaning validation or expense
- Fast turnaround time

Automated closed system

- Ensures product segregation
- Minimizes contamination risk

Nearly unattended operation

- 30 minutes to start run
- 10 hours to support per month



Hollow Fiber Advantages

Mother Nature knows this already: Capillaries efficiently perfuse dense tissues. Hollow fiber capillaries are semipermeable membranes (<60KDa MWCO). Nutrients and wastes freely exchange. Cells, growth supplements and products are retained. Products are simultaneously produced and concentrated. Growth supplements are needed in very small amounts to save \$\$\$ and create purer supernatant than in other culture methods.

Protein Production
and Concentration in
the Bioreactor!

Additional Features

AutovaxID automatically controls:

- pH
- Lactate (nutrient delivery rate)
- Incubator temperature
- Refrigerator temperature
- EC cycling (tissue perfusion rate)
- Continuous or batch harvesting

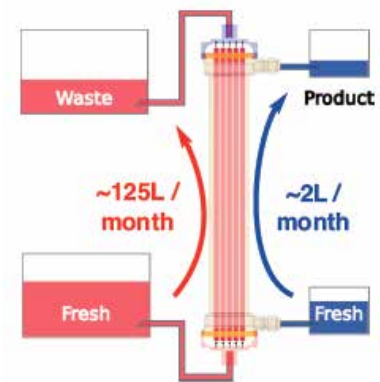
AutovaxID produces clarified, concentrated supernatant. Go directly from bioreactor to purification.

Save Time & Money

Automation = Less labor
Simplified downstream processing
AutovaxID uses two feed media:

- e.g., DMEM:F12 with 0% FBS
- e.g., DMEM:F12 with 5% FBS or various commercial serum-free media

Use very little growth supplement!



AutovaxID's Software

CFR 21 Part 11 Compliant

- Automatic power recovery
- Remote monitoring and management:
 - Touch-screen control
 - Web browser control
 - Remote alarm notification
 - Supervisory program manages many units
 - User-configurable alarms
- Use production profiles for error-free programming
- Complete electronic log from production run's beginning to end:
 - Raw materials used
 - Technician tracking
 - Process changes
 - Alarms and comments
- Log retrieval for archiving and analysis



Hollow Fiber Means High Cell Density!

~2x10¹¹ viable cells uniformly distributed throughout the bioreactor

Specifications & Requirements

- 30kg
- 20–30°C ambient 100% CO₂, 11–13 psi
- 51 cm W x 51 cm D x 48 cm H
- 100–240 VAC, 50/60 Hz, 600 watts (1 outlet)

Support

You focus on the science. We'll focus on providing robust, easy-to-operate and low-maintenance bioreactors. Our bioreactors are successfully operated by technicians with routine cell culture experience, not chemical engineers. Our technical support assists customers with achieving their success. C3 provides training, IQ/OQ, field service and preventive maintenance for its bioreactors.