Matica
BIOTECHNOLOGY
Manufacturing Breakthroughs

Microcarrier Systems for Efficient Virus Production

Microcarriers are small beads that provide a matrix for cell growth within a suspension system. Microcarrier technology is an advanced method for growing adherent cells at clinical or commercial scale for viral vectors and cell products. Utilizing Matica Bio's in-depth experience with diverse microcarrier materials, adherent processes can be rapidly scaled in suspension format without the time and expense of cell line adaptation.

CELLS GROWN ON MICROCARRIERS

CELL
MICROCARRIER
CELL

BIOREACTOR

Advantages of Microcarrier Platforms

INCREASED PRODUCTION CAPACITY
High ratio of surface area to volume results in greater cell yields per liter. The surface area can easily be controlled for cell growth by adjusting microcarrier bead concentrations.

IMPROVED CULTURE ROBUSTNESS
Better monitoring and control of environmental parameters. Increased homogeneity of nutrient and metabolite concentrations.

FACILITATED PROCESS SCALE-UP
Easy implementation and scale-up using conventional equipment.
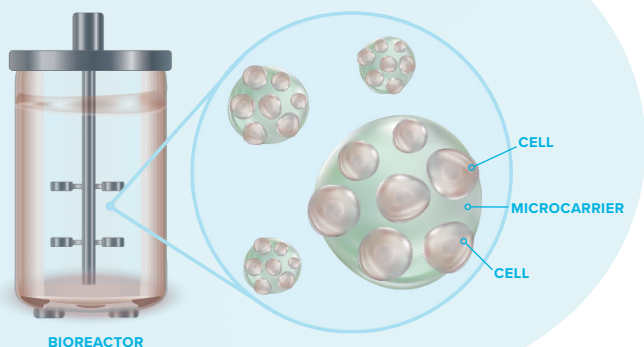
REDUCED COSTS
Reduced labor and production volumes compared to traditional static culture systems.

SHORTENED TIMELINE
Eliminates the 6-9 months often required to adapt adherent cell line to suspension-based growth.

Production Process Flow Using Microcarriers

› Cell expansion
› Microcarrier preparation
› Cell attachment to microcarrier
› Virus infection
› Harvest & purification
› Concentration & fill/finish
› Patient administration

Microcarrier Production Process = Best of Adherent Suspension Environments

![Matica Biotechnology logo](Matica BIOTECHNOLOGY — Manufacturing Breakthroughs)

Make It Happen With Matica Bio

>> *Cell & Gene Therapy Manufacturing from Development to Commercialization*

Matica Bio is a CDMO specializing in cell & gene therapies production. Our goal is to establish a global manufacturing solution, ensuring the product development and manufacturing of robust process and expediting your pathway to successful approval.

✉ **sales@maticabio.com**

📞 **+1 979-321-7500**

📍 **Headquarters**
150 Venture Dr., Suite 101
College Station, TX 77845