Efficient Production of Extracellular Vesicles / Exosomes

Harvest concentrated EVs/exosomes from perfused high density cell culture over long periods of operation

A FiberCell hollow fibre bioreactor maintains more cells in a smaller space than any other culture method and so can produce much greater amounts of exosomes/EVs with more convenience and lower cost.

- 100-fold more productive vs. flask culture
- Cell passaging not required
- Ready-concentrated product
- Serum starvation not required

What makes this culture system radically different?

A 20ml FiberCell cartridge is capillarized with hollow fibres providing around 3000 cm^2 of porous semi-permeable surface for the perfusion of cells by recirculating media. Dynamic exchange of nutrients, gases and waste products with cells in the extra-capillary space enables long-term, high density *in vivo*-like culture conditions for optimal productivity. Further scale-up is easy without extra capital investment.

Harvesting of secreted products

Exosomes/EVs are retained in the extra-capillary space and accumulate to high concentrations with very little contamination from debris due to the exceptional vitality of the producer cells. Regular harvesting of clean, concentrated product can be performed every 2 or 3 days over weeks of operation.

Serum-free operation

Many, if not most, cell types lose their dependence on serum in this mode of culture. It can usually be replaced with FiberCell's proprietary chemically defined formulation, CDM-HD. If serum has to be used in the recirculatng media any bovine exosomes are unable to cross the 20 Kd cut-off fibre walls.

KDBIO European distributor for FiberCell Systesms Inc.

FiberCell Systems A BETTER WAY TO GROW CELLS

CONTACT KDBIO for more information: info@kdbio.com +33 3 88 26 12 86 www.kdbio.com

Discover more applications for the FiberCell hollow fibre bioreactor here

Ver 170708