

Plasmid DNA GMP manufacturing workflow

Scalable, flexible, single-use solutions.
From design to delivery.

Overcome plasmid DNA (pDNA) manufacturing challenges with Cytiva

- Design a good manufacturing practices (GMP) compatible process to manufacture supercoiled plasmid that meets scale and purity goals.
- Choose modular, single-use technology to maintain flexibility and minimize contamination risk – for several steps or your whole workflow.
- Achieve peak control and efficiency with integrated solutions from fermentation through sterile filtration.

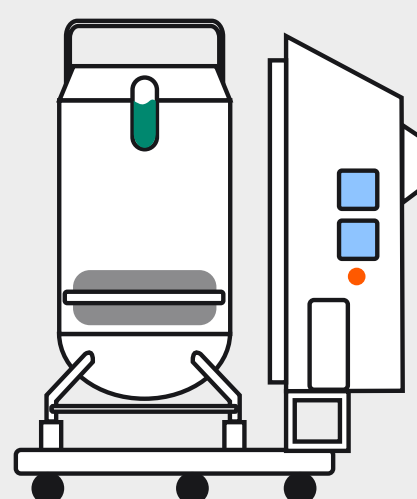
**1**

Fermentation

Achieve high-density bacterial fermentation while minimizing contamination – with digitally enabled single-use fermentors for data-driven control.

Equipment

Xcellerex™ MO fermentors

**2**

Clarification

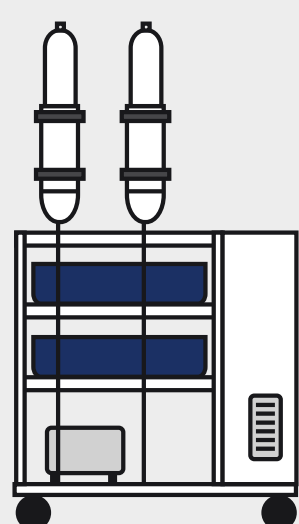
Efficient removal of flocculant debris after cell lysis – using high-capacity disposable filters that provide excellent flow rates.

Equipment

Allegro™ MVP system

Consumables

- PDP8 Stax™ depth filters

**3**

Tangential flow filtration (TFF)

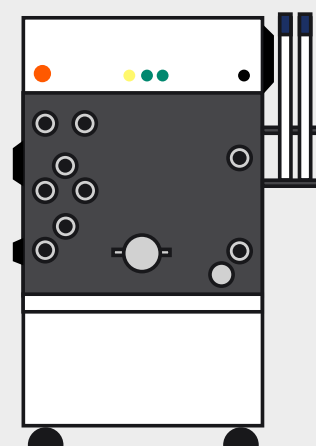
Concentrate and buffer exchange while minimizing shear forces to preserve supercoiled DNA – with disposable filters well-suited to your plasmid size and volume.

Equipment

ÄKTA readyflux™ system

Consumables

- ReadyToProcess™ single-use hollow fiber cartridges
- Centramate™ cassettes

**4**

Purification

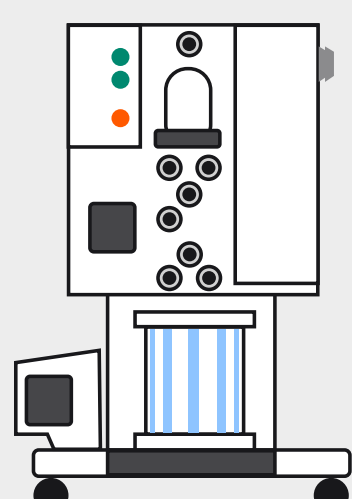
Ensure efficient removal of host cell contaminants while maximizing supercoiled pDNA yield – with this two-step, single-use chromatography process.

Equipment

ÄKTA ready™ system

Consumables

- Mustang™ Q XT membrane capsules (capture)
- Capto™ PlasmidSelect resin prepacked in ReadyToProcess columns (polishing)

**5**

Sterile filtration

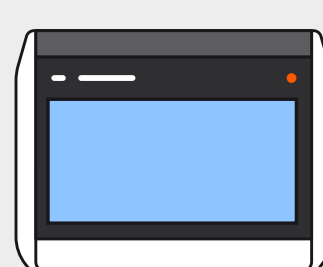
Ensuring sterility and contamination control for bulk product using single-use technology compatible with pre- and post-use integrity testing.

Equipment

Palltronic® Flowstar V

Consumables

Supor™ EKV Sterilizing Grade Filter



Looking to maximize control and efficiency across your workflow while maintaining flexibility for your facility?

Ask about our end-to-end FlexFactory™ manufacturing platform for plasmid DNA.

