Developing Monoclonal Antibodies: Challenges and Solutions

Monoclonal antibodies (mAbs) are used for immunotherapy to stimulate the immune system to mount a response to target antigens. These powerful therapeutics are being used to target various conditions including cancer, autoimmune diseases, and infectious diseases.

### Challenges

- **Isolating supernatant is time-consuming.**
- **Rapid filtration is necessary prior to sterile filtration to avoid clogging of the membrane.**
- **Increasing cell density in mammalian cell cultures makes filtration challenging.**
- **Centrifugation is needed prior to sterile filtration to avoid clogging of the membrane.**
- **One-step filtration harvest with rapid mammalian cell culture is difficult.**
- **The best performing clones grow well and are highly productive.**
- **Quantifying other parameters in addition to an IgG titer readout provides valuable information for clone selection.**

### Solutions

- **One-step filtration harvest with rapid mammalian cell culture is possible.**
- **Perform rapid, information-rich, multiplexed analysis of cells and beads in suspension with the iQue® 3 Advanced Flow Cytometry Platform.**
- **Human IgG Titer & Viability Kit correlates IgG titer-per-cell with cell health and cell growth readouts in a 384-well plate format.**
- **The best performing clones grow well and are highly productive.**
- **The iQue® 3 combines the iQue® 3 in suspension with the analysis of cells and beads with information-rich, multiplexed analysis.**
- **The Sartorius Octet® Systems Are Ideal for single IgG competition immunoassay that measures cells and secreted protein.**
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### Discover our solutions at www.sartorius.com/mab-oncology