

Optimizing cell lines to boost production

BACKGROUND

A small biomedical company, which helps clinical oncologists personalize medicine for their patients, obtained several cell lines from both academic and commercial sources. They needed an experienced company to optimize their cell lines for production and associated challenges:

- Work with cell lines contaminated with microplasma or other agents
- Restore viability to sub-optimal cell lines
- Rescue cell lines with only a few live cells remaining

GETTING TO THE SOURCE OF THE ISSUE

The customer first selected other vendors to optimize the cell lines, but could not get the results they needed.

They required a partner with patience and a proven track record to revive their sub-optimal cell lines.

Inotiv first worked with the customer to understand the source of the issue. They found that many of the cell lines were developed by the customer's academic partners for the purpose of publishing a research paper. While the quality of the cell line may have been sufficient for research, the cell lines fell short when trying to meet the demands of scaled-up production.

BRINGING CELL LINES BACK TO LIFE

The Inotiv team began the process of rescuing the cell lines by cleaning up the mycoplasma and other contaminants before isolating antibody secreting cells. In some cases, they could locate only a few live cells and had to take great care to re-establish the cell line.

Based on the success of these initial projects, the customer asked Inotiv to clone additional cell lines and optimize them. Some were in very poor condition, with only 5-10% of the population secreting antibody. Inotiv was able to get these lines back up to 100% secretion and enable the customer to continue their production-level testing.

DELIVERING VALUE TO THE CUSTOMER

Over the last four years, the customer has continued to rely on Inotiv's technical experience to optimize their hybridoma cell lines obtained from a number of different sources. Even with extreme compromised cell lines, Inotiv was able to fully revive each and every one.

With 55 different cell lines optimized, the partnership continues to help the customer receive high quality cell lines that meet its production goals and enable high-quality manufacturing.

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A biomedical customer

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inotivco.com/antibody-insights