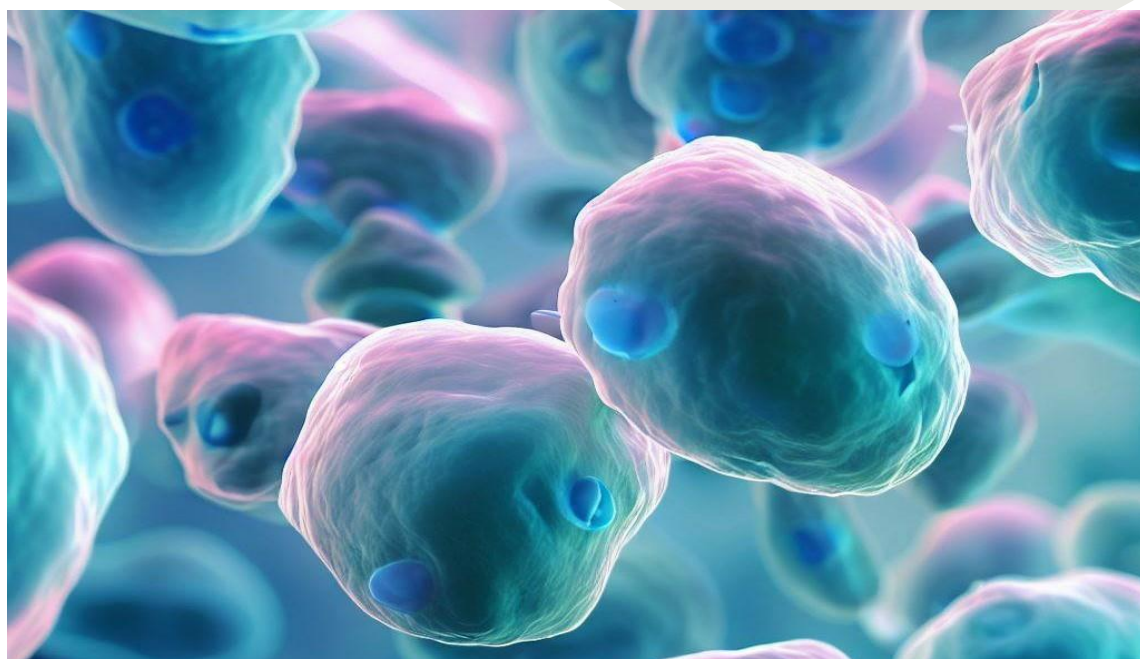


# Antibody Production in Hybridoma Culture

Application Note



## PAN Biotech

Your Partner in Cell Culture

----- JIANAN FU (CSO)

HybridBoost is the result of our young and motivated R&D team, designed to optimize cell growth and increase production yields. With a unique formulation that enhances cell proliferation and metabolism, HybridBoost is the perfect solution for challenging cell culture applications that require high-density cell growth and maximum product yield.



PAN-Biotech is a leading manufacturer of cell culture products that specializes in the development and production of high-quality culture media, reagents, and buffers. With over 30 years of experience in the biotech industry, PAN-Biotech has earned a reputation for excellence in meeting the unique and evolving needs of researchers and biotech companies around the world. The company's ability to manufacture and develop custom cell culture products with flexibility and precision has made it a trusted partner for many leading research institutions and pharmaceutical companies. Whether customers require standard or customized solutions, PAN-Biotech is committed to delivering reliable and innovative cell culture products that help advance scientific discovery and the development of life-saving therapies.

## Unlock High Cell Density and Maximize Product Yield

Facing challenges with cell culture growth rate? Struggling to meet productivity targets? Consider **HybridBoost (P04-995910)** – our solution engineered to boost cell growth and elevate your yield.

Together with **BioNet**, we work with the **Celltainer** bioreactor, acknowledged for its efficient mixing and oxygen transfer properties. These attributes contribute to optimal cell growth conditions. When coupled with HybridBoost, your cell culture applications stand to gain substantial productivity enhancements.

The efficiency of HybridBoost combined with the Celltainer isn't just theory – it's backed by empirical data. In a rigorous nine-week application test with **ASKA Biotech**, using a perfusion process, HybridBoost and the Celltainer facilitated a 2 to 3 fold increase in product yield.

This result significantly outperformed traditional small-scale production methods. Additionally, we saw marked improvements in process efficiency, leading to noteworthy reductions in time and cost.

PAN-Biotech is committed to quality and customer satisfaction, and these values form the core of our brand reputation. Our technical support team is on hand to assist with any questions or challenges related to implementing HybridBoost in your cell culture process. With a reliable supply and ease of use, HybridBoost and the Celltainer present a compelling choice for efficient, productive cell cultures.

Experience the benefits of HybridBoost first-hand in your cell culture applications. Reach out to PAN-Biotech today and learn how this advanced solution can optimize your long-term cell culture processes.

## ASKA Biotech



--- CONTRACT MANUFACTURING

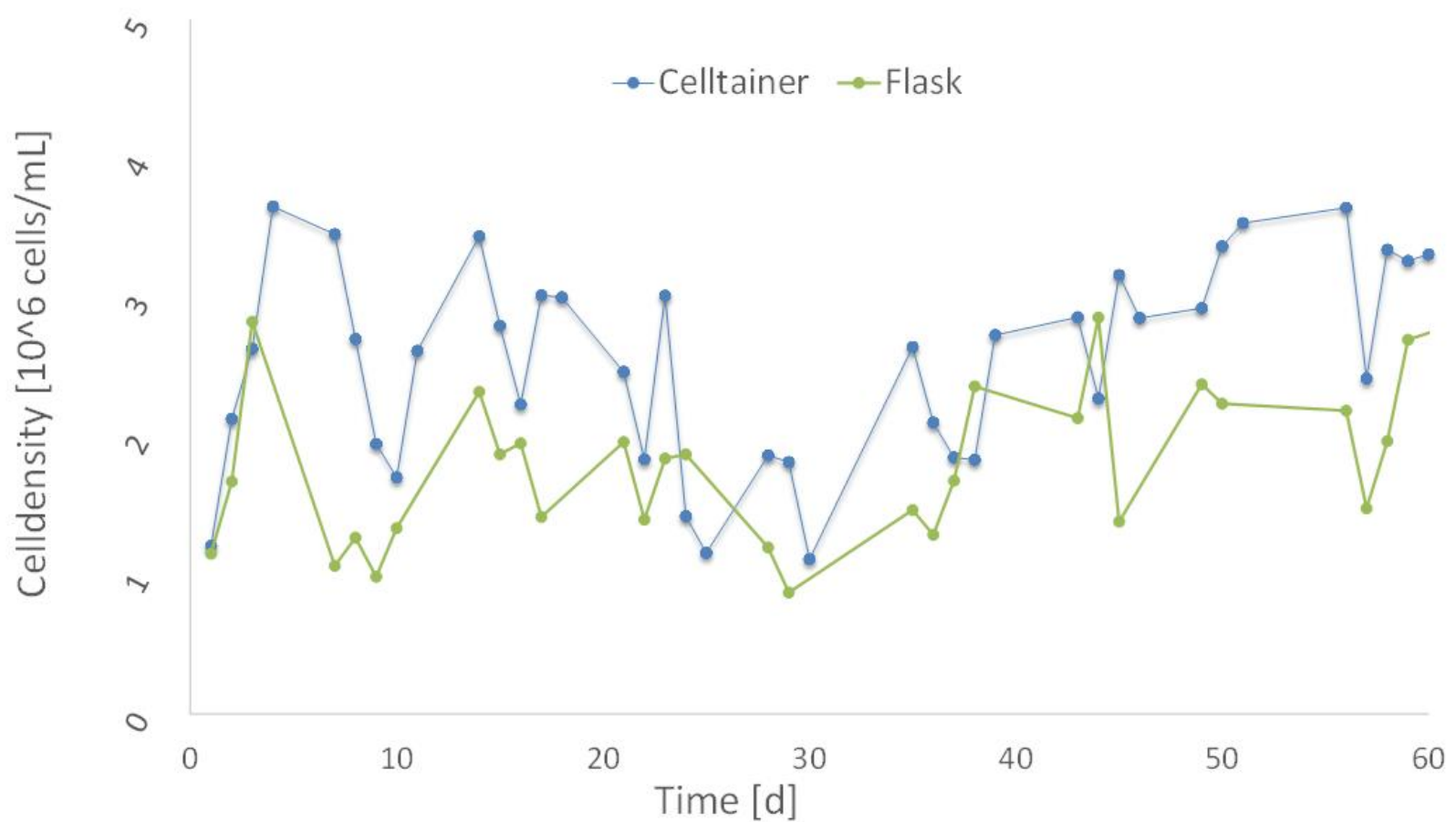
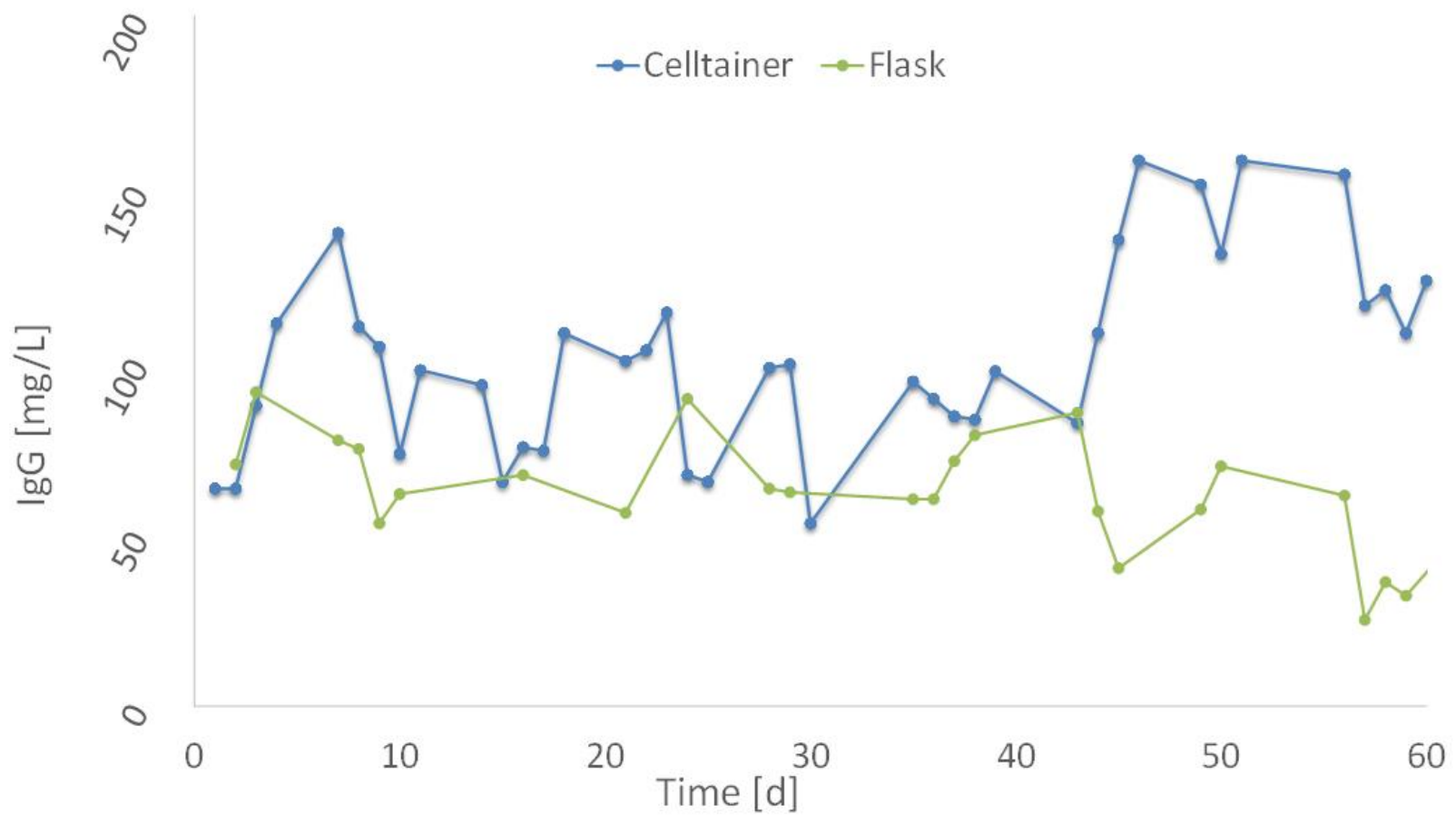
ASKA Biotech is your partner for your outsourcing needs. As an ISO 13485 and ISO 9001 certified contract manufacturer they are specialized in cell culture, antibody & protein production and purification processes for R&D and IVD industry. On the basis of optimized protocols ASKA provides reliable services for competitive prices.

The company offers a wide range of products and services, including custom antibody production and protein expression. The custom protein production services provides high-quality and reproducible product batches, that are specifically tailored to the individual needs. To round off the range ASKA Biotech also provides the production of immunoassays and sample analysis.

ASKA Biotech's protein expression services enable to produce recombinant proteins for use in various applications. For this the company uses a variety of expression systems, including bacterial, and mammalian systems.

ASKA Biotech's products and services are designed to facilitate research and industry in the areas of immunology, neuroscience, oncology, and other related fields. ASKA Biotech is committed to providing its customers with exceptional customer service and support, and is dedicated to meeting the unique needs of each individual customer.

[www.aska-biotech.de](http://www.aska-biotech.de)  
[info@aska-biotech.de](mailto:info@aska-biotech.de)



## Antibody production in 9 weeks perfusion cell cultures

Production hybridoma cell line was generated and provided by ASKA Biotech. Preculture was prepared and induced according to procedures provided by ASKA Biotech. Discontinuous perfusion was performed in 2 L Flask ("Flask" in figure) and 20L Celltainer ("Celltainer" in figure). Supernatant was removed, while fresh medium was supplemented regularly according to specific process parameters.

Higher cell densities can be achieved and maintained in Celltainer (Cell density in 10<sup>6</sup> cells/mL in figure). Approximately 100% higher concentration of antibodies was observed during the experiment. Data at the end of this study even indicate potential of establishing process of longer duration and higher titer than 9 weeks in Celltainer.





# Cell-tainer

Cultivating the Future: The Revolutionary Potential of Cell Culture

----- TUKTU KURT



Cell culture technology is transforming the way we approach research and development in the life sciences. With its ability to create controlled environments for cell growth and study, this cutting-edge technology is helping scientists gain deeper insights into cellular behavior and disease progression. Whether you're working in biotechnology, pharmaceuticals, or medical research, cell culture has the potential to unlock new discoveries and drive innovation. At Celltainer, we're at the forefront of this exciting field, providing state-of-the-art solutions for cell culture applications. With our patented Celltainer system, you can enjoy maximum flexibility, scalability, and control over your cell culture processes. Contact us today to learn more about our products and services and how they can help your business stay ahead of the curve.

