Datasheet

PANcell CHO Feed Kit

Product	Description	Catalogue-No.	Size
PANcell CHO Feed Kit	**Protein free, chemical defined CHO-cell-culture Kit**	**P04-71102K**	**500 ml**

Product description

PANcell CHO kit is developed to maximize growth and productivity in CHO-based batch, as well as fed-batch and perfusion processes. The kit is chemically defined and free of protein, animal-derived components and undefined hydrolysates. Due to the lack of hypoxanthine and thymidine, precursor cell lines without DHFR expression need appropriate supplementation. The kit includes a batch medium (P04-71102), a feed medium (P02-71101) and a booster (P02-71102) to promote the final titer. A recommended feed schedule (see below) can be considered as a good starting point to develop your own feed procedure.

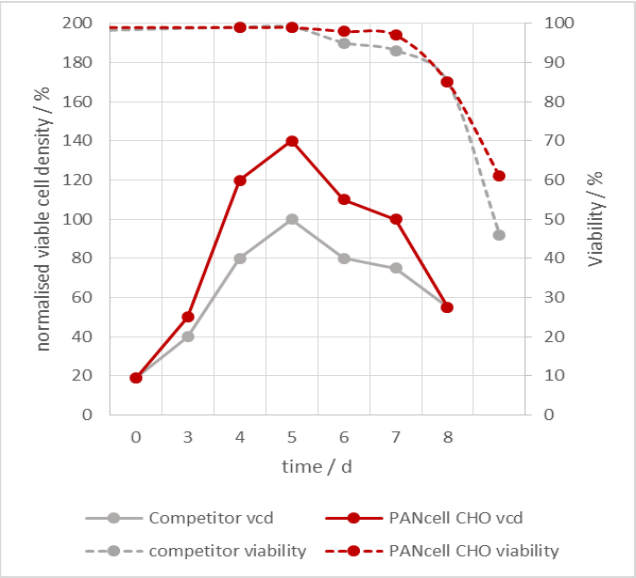
Storage conditions

Storage: 2-8°C
Stability: as stated on the Certificate of Analysis
Size: 500 ml, other sizes on request

Composition

The system consists of a basal medium for CHO cells (PANcell CHO basal medium, P04-71102), a basal feed supplement for improved growth (PANcell CHO feed supplement, P02-71101) and a boost feed supplement (PANcell CHO boost supplement, P02-71102). All components are protein free and chemically defined. All Kit components are free of L-Glutamine.

A



B

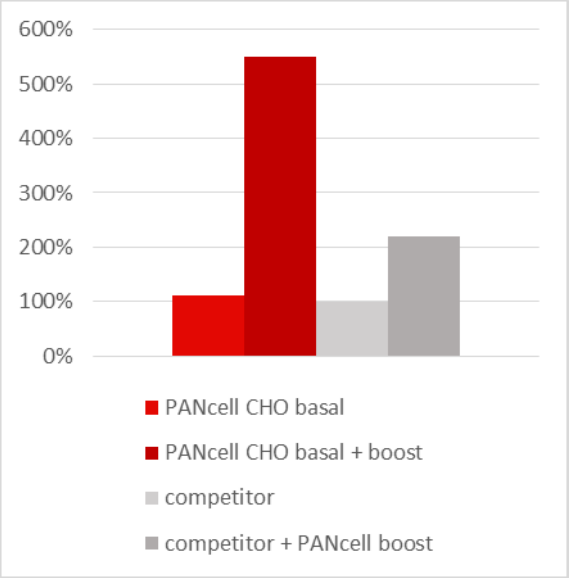


Fig.1: Application of PANcell CHO basal medium (P04-71102) in shaken cultures without pH control (v=10 ml) using the cell line CHO DP-12 in comparison with a leading competitor chemically defined medium (including equivalent L-Glutamine concentration). (A): In batch cultures PANcell CHO resulted in higher viable cell densities than the competitors product. (B): PANcell CHO boost supplement (P02-71102; 2 % (v/v) at day 3 and 4) to the batch culture improved the production efficiency of the murine monoclonal antibody to 2-fold (competitor) and over 5 fold (PANcell CHO basal medium), respectively.

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Instructions for use

Adaption:
Basal medium is suitable for direct cultivation without prior adaption.

Subculture:
Before inoculation, cultures are subcultured every 4 – 5 days.

Feed schedule:
The feed system provides essential as well as depleted nutrients for a flexible development of tailormade fed batch processes. Feeding with PANcell CHO feed supplement (P02-71101) promotes growth and prolongs the overall culture duration leading to improved recombinant titer. The latter can be further improved by adding PANcell CHO boost supplement (P02-71102) that boosts the specific productivity.

The standard feed schedule for PANcell CHO feed supplement is a daily application of 5 % (v/v) starting on day 2-4 of a given batch culture. Alternatively, a constant flow feed schedule by peristaltic pump systems can be applied and could be beneficial for certain processes. The optimal feed ratio tested is 30 % (v/v), whereas the maximal feed addition should not exceed 40 % (v/v) of the starting volume.

The PANcell CHO boost supplement (P02-71102) can be added by daily application of 1-2 % (v/v) starting on day 3-5. Alternation with PANcell CHO feed supplement addition can be beneficial for the process performance as well as recombinant protein titer. The optimal feed ratio for PANcell CHO boost supplement is 5-10 % (v/v) of the starting volume.

Example of feed schedule:
- Day 0: Seed at 0.3 – 0.5 x 10^6 cells per ml.
- Day 3, 4, 6, 7 and 9: addition of 5 % Basal Feed Supplement
- Day 5 and 8: addition of 2 % Boost Feed Supplement

Technical support
For technical support, questions or remarks please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email (info@pan-biotech.com) or phone +49-8543-601630.

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