

Datasheet

PANcell CHO-K1 Feed Kit

Product	Description	Catalogue-No.	Size
PANcell CHO-K1 Feed Kit	Protein free, chemical defined CHO-cell-culture Kit	P04-71101K	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. It includes a batch medium (P04-71101), 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, P04-71101), 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 L-Glutamine and protein free and chemically defined.

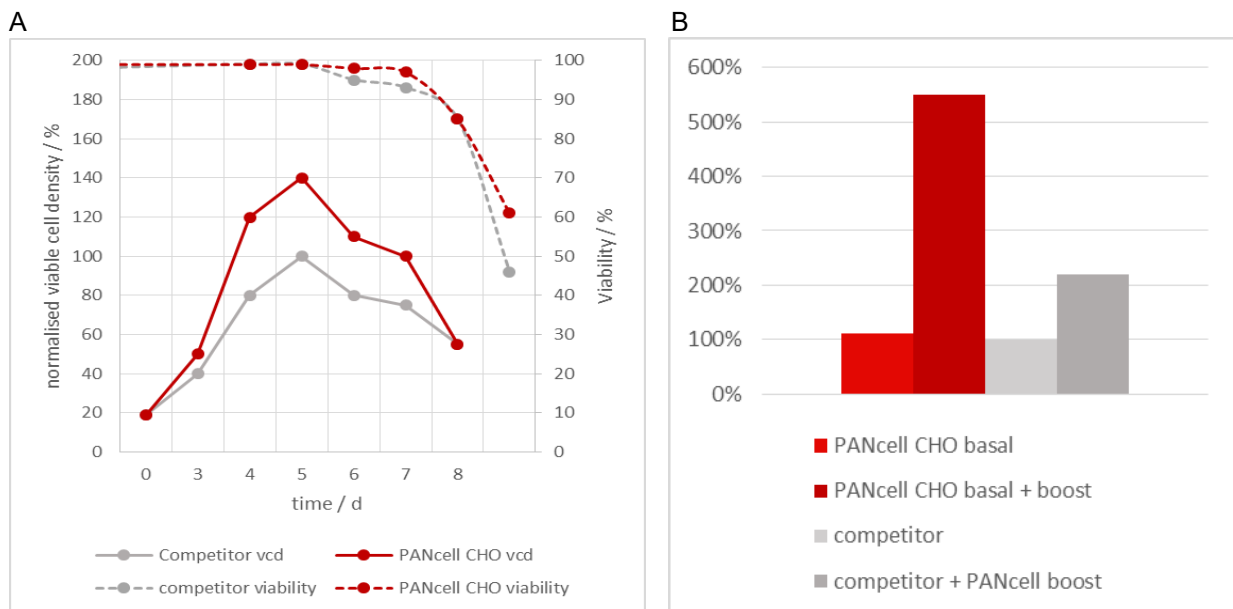


Fig.1: Application of PANcell CHO basal medium (P04-71101) in shaken cultures without pH control (v=10 ml) using the cell line CHO DP-12 in comparison with a leading competitor chemically defined medium (including equivalent L-Glutamine concentration). (A): In batch cultures PANcell CHO resulted in higher viable cell densities than the competitor's 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.

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 tailor-made 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 $0.3 - 0.5 \times 10^6$ 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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