

Data sheet | Usage of SciFY4 feed medium in suspension CHO-K1 processes

Background

The following feed medium SciFY4 was developed for improving growth and productivity in CHO-K1-based fed-batch processes. The chemically defined, protein-free formulation of SciFY4 provides essential as well as beneficial nutrients and is compatible with various basal media.

Application note | Characteristics

The standard feed schedule for SciFY4 is a daily application of 5 % (v/v) starting on day 2-4 of a given batch culture (see e.g. figure 1). Alternatively, a constant feed 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). On demand, the glucose as well as L-glutamine levels needs to be monitored and adjusted to 2-3 g/L and 1-2 mM, respectively.

SciFY4 is provided as a 0.22 μm sterile filtered as well as sterility tested liquid with an osmolality of 445 – 475 mOsmol $\cdot\text{kg}^{-1}$, a pH of 7.3 - 7.6 and free of mycoplasma.

Performance

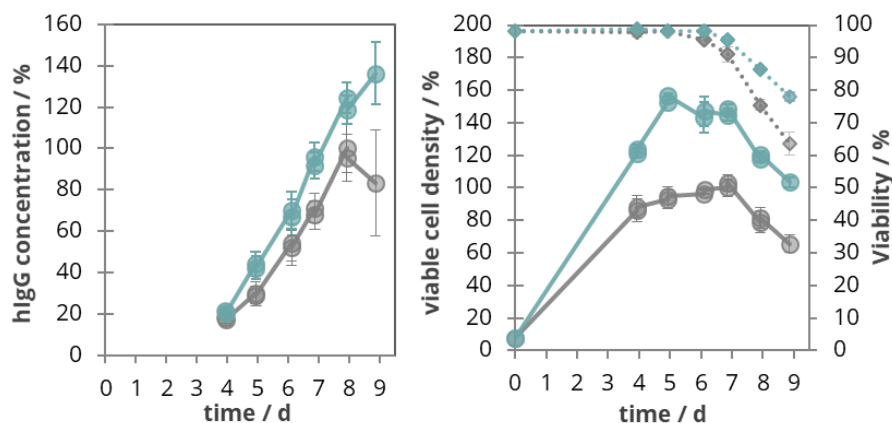


Figure 1: Application of SciFY4 (Art.Nr. 100-110; green lines) in comparison with a competitor's feed (including equivalent L-glutamine concentration; grey lines) to a CHO-K1-based suspension cell producing a human IgG1 (hIgG). Feed addition started at day three with daily addition of 5 % (v/v) of respective feed to shaken tube cultures without pH control and additional glucose or L-glutamine addition. As basal medium Scinora's multipurpose chemically defined, protein-free medium SciNX was used.

Available products

Following products are currently available:

Art. Nr.	Components
100-110	SciFY4 with glutamine and glucose; 500 ml
100-111	SciFY4 without glutamine, with glucose; 500 ml
100-112	SciFY4 without glutamine and glucose; 500 ml
100-101	SciNX multipurpose chemically defined, protein-free basal medium, with glutamine; 500 ml