



Cell Boost™ 3 Supplement

HyClone™ Cell Boost 3 Supplement is designed to provide nutrients such as amino acids, vitamins, glucose, and trace elements as part of fed-batch cell culture strategies (Fig 1). Cell Boost 3 Supplement has been tested on a variety of cell lines including hybridoma and myeloma cells.

Key features of Cell Boost 3 Supplement include

- Chemically defined
- Animal-derived component-free (ADCF)
- Protein-free
- No L-glutamine or poloxamer 188
- Manufactured according to cGMP guidelines

Specifications

Cell Boost 3 Supplement is designed to improve productivity through a multi-vitamin feed approach. Cell Boost 3 Supplement has been tested on a variety of cell lines including hybridomas and myelomas. Figure 2 shows IgG1 production from a proprietary Sp2/0-derived hybridoma cultured in CDM4MAB medium supplemented with Cell Boost 3.

Cell Boost 3 Supplement powder should be stored protected from moisture in a tightly sealed container.

Suggested preparation

1. Add 35 g of Cell Boost 3 Supplement to 900 mL of cell culture-grade water. If your water source is normally cool, it may be useful to adjust the water temperature. Using warmer room temperature water (22°C to 25°C) will improve solubilization time. Mix for 20 min or until dissolved.
2. Adjust pH to 7.0 to 7.4 if desired.
3. Bring volume to 1000 mL.
4. Sterile filter with 0.2 µm filter.



Fig 1. Cell Boost 3 Supplement is chemically defined and animal-derived component-free.

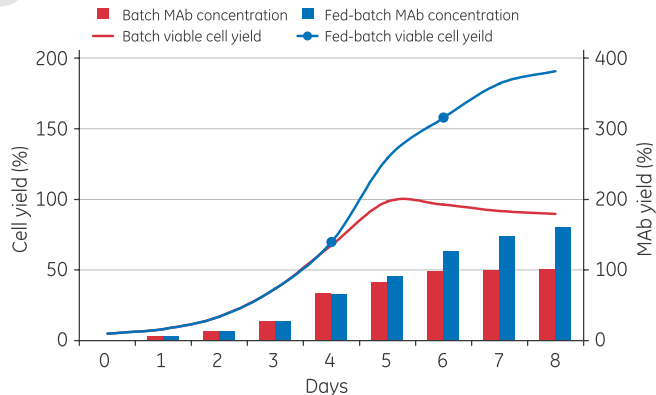


Fig 2. IgG1 production using a proprietary Sp2/0-derived hybridoma cultured in HyClone CDM4MAB medium. Fed-batch culture employed on days 4 and 6 using Cell Boost 3 Supplement.

Preparation notes

Cell Boost 3 Supplement can be formulated from 30 to 40 g/L. The supplement has specific storage, temperature, and pH requirements when formulated at higher concentrations.

Store Cell Boost 3 Supplement liquid solution at 2°C to 8°C, away from light.

General culture recommendations

Recommended supplementation range is between 20 to 200 mL/L during mid to late growth phase. It is anticipated that this will be day 3 to 4 of the culture. It is suggested that L-glutamine is monitored separately in those cultures where it is present in the culture medium, and supplemented as needed.

Related products

The six Cell Boost supplements have been designed to provide nutrients such as amino acids, vitamins, lipids, cholesterol, glucose, and/or growth factors in combinations suitable for multiple mammalian cell types. In addition to the Cell Boost supplement line, GE Healthcare Life Sciences offers concentrated liquid supplements designed to provide lipids and cholesterol to cell lines such as NS0, as well as specific nutrients for those cells using the glutamine synthetase (GS) gene expression system.

Table 1 gives an overview of HyClone supplements.

HyClone Cell Boost kit

HyClone Cell Boost Process Supplements (100 g each) contain samples of supplements designed to increase cell productivity in a variety of cell lines. Each supplement is developed through the Metabolic Pathway Design process and is chemically-defined and protein-free with no animal derived components.

HyClone LS250 supplement

HyClone LS250 is a chemically defined, animal-derived component-free lipid supplement developed to stimulate cell growth and monoclonal antibody (MAb) production in NS0 cell cultures using traditional hybridoma serum-free media.

HyClone LS1000 supplement

HyClone LS1000 supplement is a chemically defined, animal-derived component-free lipid supplement developed to stimulate cell growth and MAb production in NS0 cell cultures using traditional hybridoma serum-free media.

The supplement is formulated using a proprietary complexing process for enhanced cholesterol delivery. HyClone LS1000 has been successfully tested in a variety of serum-free medium cultures, including HyClone CDM4NS0 medium and HyClone CDM4MAb medium.

HyClone GS-Max supplement

Developed based upon traditional GS supplement formulations to provide the additional nutrients needed for high productivity in GS-cloned CHO and NS0 cell lines.

HyClone CDM4CHO medium

Increases process yields in the manufacture of recombinant proteins using a variety of CHO cell clones.

HyClone CDM4NS0 medium

Increases process yields in the manufacture of MAbs using a variety of NS0 cell clones.

HyClone CDM4MAb medium

Increases process yields in the manufacture of MAbs for therapeutic use in a variety of engineered hybridoma and recombinant myeloma cell lines.

HyClone CDM4PERMAb medium

Increases process yields in the production of human antibodies and recombinant proteins when using PER.C6™ technology.

HyClone CDM4HEK293 medium

Supports high cell density and specific cell productivity in suspension cultures.

Table 1. Supplement matrix

	Amino acids	Vitamins	Glucose	Trace elements	Growth factors	Hypoxanthine/thymidine	ADCF* lipids	ADCF* cholesterol	Suitable for	Code number
HyClone Cell Boost 1 Supplement (R05.2)	●	●	●						HEK293 CHO	SH30584
HyClone Cell Boost 2 Supplement (R15.4)	●		●						PER.C6 CHO	SH30596
HyClone Cell Boost 3 Supplement (JM3.5)	●	●	●	●		●			Hybridoma Myeloma	SH30825
HyClone Cell Boost 4 Supplement (PS307)	●	●	●	●	●		●	●	CHO	SH30857
HyClone Cell Boost 5 Supplement (CN-F)	●	●	●	●	●	●	●	●	Hybridoma NS0 HEK293 CHO	SH30865
HyClone Cell Boost 6 Supplement (CN-T)	●	●	●	●	●	●	●	●	T-Cells Hybridoma NS0 HEK293 CHO	SH30866
HyClone LS250 supplement							●	●	NS0	SH30554
HyClone LS1000 supplement								●	NS0	SH30555

* Animal-derived component-free

Ordering information

Product	Size	Code number
HyClone Cell Boost 3 Supplement	100 g	SH30825.01
	500 g	SH30825.02
	1000 g	SH30825.03
	5000 g	SH30825.04

Related products

	Code number
HyClone Cell Boost kit	SH30890
HyClone LS250 supplement	SH30555
HyClone LS1000 supplement	SH30554
HyClone GS-Max supplement	SH30586
HyClone CDM4CHO powder medium	SH30556
HyClone CDM4CHO liquid medium	SH30557, SH30558
HyClone CDM4NS0 powder medium	SH30578
HyClone CDM4NS0 liquid medium	SH30579
HyClone CDM4MAb powder medium	SH30800
HyClone CDM4MAb liquid medium	SH30801, SH30802
HyClone CDM4PERMAb powder medium	SH30872
HyClone CDM4PERMAb liquid medium	SH30871
HyClone CDM4HEK293 powder medium	SH30859
HyClone CDM4HEK293 liquid medium	SH30858

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