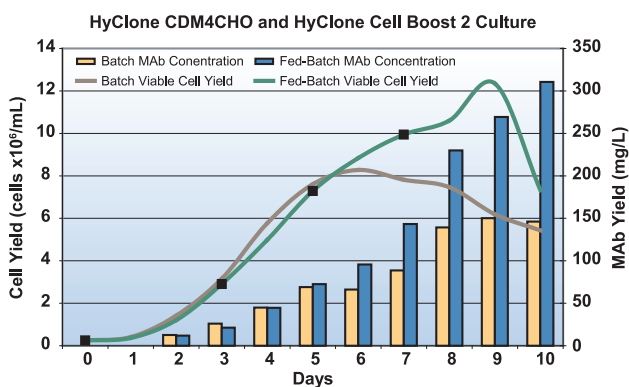


Thermo Scientific HyClone Cell Boost 2 is a supplement designed to provide nutrients such as amino acids, vitamins and glucose as part of fed-batch cell culture strategies. Cell Boost 2 has been developed for recombinant protein production with various cell lines including- CHO and PER.C6® (CruCell NV).

Thermo Scientific HyClone Cell Boost 2 (R15.4)

Features

- Chemically-Defined
- Animal Derived Component Free
- Protein-Free
- Does not contain L-glutamine or Pluronic® F68
- Manufactured under cGMP



Figure

Production of monoclonal antibody using a CHO cell line cultured in Thermo Scientific HyClone CDM4CHO during a 3 L stirred tank bioreactor culture. Fed-batch culture employed on days 0, 3, 5 & 7 using HyClone Cell Boost 2 (R15.4).

Fed-Batch Supplementation

This formulation was designed for use in many feed formats. Two suggested preparations/applications have been outlined.

Method 1 Preparation - 3.5% Solution

1. To 900 mL of cell culture grade water add 35 g of Cell Boost 2. Allow to stir for 20 minutes.
2. QS to 1 L and 0.2 µm sterile filter.

3.5% Solution Suggested Application

Supplement 100-200 mL/L, one or more times, starting during early to mid growth-phase. It is anticipated that this will be day 2-4. Start culture at a reduced volume according to anticipated feeds. Supplement 100 mL/L starting early to mid growth phase. It is anticipated that this will be day 2-4. Continue supplementation daily until final volume is reached. It is recommend to monitor L-Glutamine separately and supplement as needed.



Method 2 Preparation - 10% Solution

1. To 850 mL of 0.5N NaOH add 100 g of Cell Boost 2. Allow to stir for 20 minutes.
2. QS to 1 L with 0.5N NaOH. Stir for 10 minutes.
3. 0.2 µm sterile filter.
4. Prior to use adjust the solution to pH 7.4-7.8 using sterile 1N HCl. Recommendation is to use pH adjusted supplement within 2 hours.

Note: Alternatively powder may be hydrated in water and then adjust to pH 9.5-10 with 5N NaOH to solubilize formulation.

10% Solution Suggested Application

Recommended supplementation range is between 5-40 mL/L, one or more times, starting mid to late growth-phase. It is anticipated that this will be day 2-4 of culture. It is recommend to monitor L-Glutamine separately and supplement as needed.

Ordering Information

The six Cell Boost supplements have been designed to provide such nutrients as amino acids, vitamins, lipids, cholesterol, glucose and/or growth factors in novel combinations for multiple mammalian cell types. Thermo Scientific HyClone Cell Boost supplements are chemically-defined and contain no animal derived components. In addition to the Cell Boost line, we offer concentrated liquid supplements designed to provide lipids and cholesterol to such cell lines as NS0, as well as specific nutrients for those cells using the glutamine synthetase (GS) Gene Expression System.

HyClone Cell Boost 2

Name	Part Number/Unit Size		Description							
HyClone Cell Boost 2™	SH30596.01	100 g	HyClone Cell Boost 2 is a supplement designed to provide nutrients such as amino acids and glucose. It is also designed to improve productivity through a single-vitamin feed approach. HyClone Cell Boost 2 has been tested on a variety of cell lines including CHO and PER.C6®.(CruCell NV)							
	SH30596.02	500 g								
	SH30596.03	1000 g								
	SH30596.04	5000 g								
Related Products										
HyClone Cell Boost™ Kit	SH30890	6 x 100 g	Amino Acids	Vitamins	Glucose	Trace Elements	Growth Factors	Lipids	Cholesterol	
		Cell Boost 1	✓	✓	✓					
		Cell Boost 2	✓	✓	✓					
		Cell Boost 3	✓	✓	✓	✓				
		Cell Boost 4	✓	✓	✓	✓	✓			
		Cell Boost 5	✓	✓	✓	✓	✓	✓	✓	
		Cell Boost 6	✓	✓	✓	✓	✓	✓	✓	
HyClone LS250™	SH30555	HyClone LS250 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.								
HyClone LS1000™	SH30554	HyClone LS1000 has been formulated using a proprietary complexing process for enhanced cholesterol delivery. It has been successfully tested in a variety of serum-free media cultures, including HyClone CDM4NS0™ and HyClone CDM4MAb™.								
HyClone GS-Max™	SH30586	The development of HyClone GS-Max was built upon traditional GS supplement formulations to provide the additional nutrients needed for high productivity in GS-cloned CHO and NS0 cell lines.								
HyClone CDM4CHO™	SH30557 SH30558 SH30556	4 mM L-Glutamine (Liquid)	HyClone CDM4CHO is developed to increase process yields in the manufacture of recombinant proteins using a variety of CHO cell clones.							
		No L-Glutamine (Liquid)								
		No L-Glutamine (Powder)								
HyClone CDM4NS0™	SH30579 SH30578	No L-Glutamine (Liquid)	HyClone CDM4NS0 is developed to increase process yields in the manufacture of MAbs using a variety of NS0 cell clones.							
		No L-Glutamine (Powder)								
HyClone CDM4MAb™	SH30801 SH30802 SH30800	6 mM L-Glutamine (Liquid)	HyClone CDM4MAb is developed to increase process yields for the manufacture of monoclonal antibodies for therapeutic use in a variety of engineered hybridoma and recombinant myeloma cell lines.							
		No L-Glutamine (Liquid)								
		No L-Glutamine (Powder)								
HyClone CDM4PERMAb™	SH30871 SH30872	No L-Glutamine (Liquid)	HyClone CDM4PERMAb has been developed to increase process yields in the production of human antibodies and recombinant proteins using PER.C6® technology.							
		No L-Glutamine (Powder)								
HyClone CDM4HEK293™	SH30858 SH30859	No L-Glutamine (Liquid)	HyClone CDM4HEK293 was developed to support high cell density and specific cell productivity in suspension cultures							
		No L-Glutamine (Powder)								



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