

HybriMore™, hybridoma cloning factor

HB01-1L, for 1L dilute
For Research Use Only
Store at 4 °C

Introduction

Hybridoma cells, which are used for production of monoclonal antibodies, result from fusion of an antibody producing B-cell with a tumor cell, typically myeloma cells. Growth factors and serum are generally used to support the hybridoma development and achieve an optimal cell density and cloning efficiency.

HybriMore™ is the first completely defined growth promoting supplement especially for hybridoma cells. It may substantially increase the cloning efficiency of the newly fused hybridoma cells (Figure 1). It also significantly increases the successful rate of mono-clonization (Figure 2). The addition of HybriMore™ will not alter the yield of antibody secretion in hybridoma cells (Figure 3).

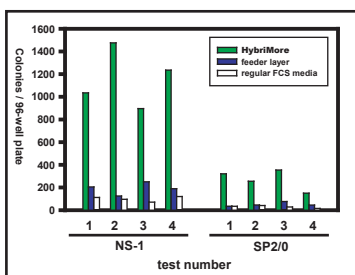


Figure 1:
Comparison of the cloning efficiency of the newly fused hybridoma cells.

The newly PEG fused hybridoma cells were plated into a 96-well plate containing FCS media with HybriMore™ (green bars), FCS media with feeder layer (blue bars), or regular FCS media (white bars). Hybridoma cells were subject to HAT selection 14 days after the cell fusion. The numbers of viable hybridoma colonies were visually counted under a microscope. Two mouse myeloma fusion partners, NS-1 and SP2/0, were evaluated by four independent fusion experiments with freshly prepared mouse spleens. **(A significant higher cloning efficiency was observed for the usage of HybriMore™).**

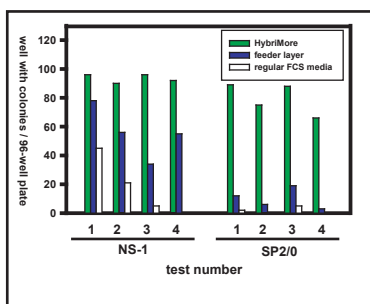
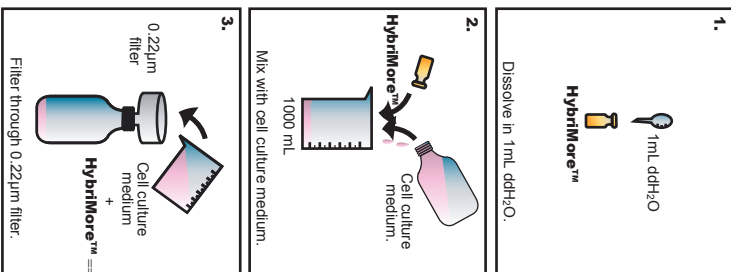


Figure 2:
Comparison of successful rate of mono-clonizing hybridoma cells.

Eight clones of hybridoma cells from NS-1 or SP2/0 fusion partners were mono-clonized in the media containing FCS media with HybriMore (green bars), FCS media with feeder layer (blue bars), or regular FCS media (white bars). The numbers of viable hybridoma colonies in a well were visually counted under a microscope. **(A significant higher successful rate of mono-clonization was observed for the usage of HybriMore™).**



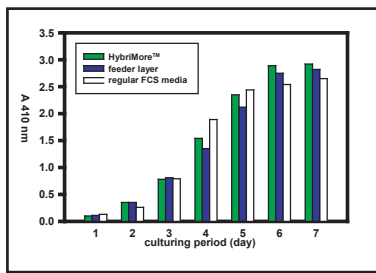


Figure 3:
Comparison of the titers of secreting Ab.

A clone of hybridoma cells (anti human transferrin, L3B5) was cultured in the media containing FCS media with HybriMore (green bars), FCS media with feeder layer (blue bars), or regular FCS media (white bars) for seven days. The supernatants were harvest and examined by the titer of secreting Ab by ELSIA assay. **(The usage of HybriMore™ will not alter the yield of secreting Ab in hybridoma cells).**

In comparison with the method of using feeder layer cells for supporting the growth of hybridoma cells, HybriMore™ is not only more effective (Figure 1) but provides numerous advantages. The comparison of the applications in hybridoma experiment between HybriMore™ and feeder layer strategy was summarized in Table 1.

Table 1. Comparison of the application in hybridoma experiments

Comparison of the application in hybridoma experiments	
HybriMore™	Feeder layer (conventional)
Optimal numbers of hybridoma clones	Overgrowth of newly formed hybridomas
Defined chemical, no animal source materials	Source of contamination
No competition for nutrients	Competition for nutrients
Defined concentration of supplement	Variations in growth factor concentration.
Convenient to supplement	Tedious procedure to prepare the feeder layer

Advantages of Using HybriMore™

- ✓ **Increase the cloning efficiency of the newly fused hybridoma cells**
Up to 10 fold increasing numbers of recovered hybridoma clones
- ✓ **Increase the successful rate of mono-clonization**
High survival rate of a hybridoma cell during mono-clonization

Product Components

HybriMore™ (HB01-1L)

HybriMore™, hybridoma culturing supplement (HB01-1L)

1 bottle

User's manual

1 booklet

Safety Information

Please wear gloves, lab coat and goggles while operating. Prevent contact product directly. In case of contacting, wash with large amount of water.

Storage

HybriMore™ should be stored at 4°C and shielded from light. Please use up the product in 12 months.

Instruction

1. Reconstitute HybriMore™ hybridoma culturing supplement by 1 mL ddH₂O.
2. Add the reconstituted HybriMore™ into 1L regular culture media, such as DMEM or RPMI-1640 based media w/ 10% fetal bovine serum and antibiotics.
3. Sterile the reconstituted HybriMore™ by filtering through 0.22μ filters. The reconstituted HybriMore™ should be used up within 1 month.
4. The HybriMore™ containing media can be stored as the regular hybridoma culturing media. The addition of HybriMore™ will not alter the shelf life of prepared media.
5. The prepared media can be directly used for culturing the newly fused hybridoma cells, or the mono-clonization experiment.
6. The recommend situations of HybriMore™ addition:
 - (1) HybriMore™ can be added to HAT-media during the initial selection of hybridoma cells.
 - (2) HybriMore™ can be added to cell culture media for the mono-clonization of hybridoma cells.

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