

Corning® hybrigro™ SF Medium

Technical Note

CORNING

Materials and Methods

MH677 (proprietary murine hybridoma cell line) cells were cultured in three different media, hybrigro SF Medium (Cat. No. 40-215-CV) or one of two commercially available serum free media designed for hybridoma growth. MH677 cells were seeded into 125mL Erlenmeyer flasks (Corning Cat. No. 431405) at a concentration of 50,000 cells/mL. Cells were allowed to culture for four days in a humidified incubator at 5% CO₂ and 37°C while rotating at 90 rpm. Daily media samples were assessed for cell number and cell viability analysis on the BioProfile® Flex analyzer (Nova Biomedical). Media samples were also collected from each vessel for antibody production (Mouse IgG2a) assessment which was ascertained by following the IgG2a ELISA protocol provided by Alpha Diagnostic International (Alpha Diagnostic International Cat. No. 6340).

Results

Based on daily viable cell counts, MH677 cells grown in hybrigro SF Medium outperformed cells grown in either of the other two commercially available serum free hybridoma media. The results were found to be statistically significant (ANOVA - Newman-Keuls Post Test) (Figure 1). Additionally, the MH677 cells grown in hybrigro SF Medium had statistically significant higher IgG2a production when compared to both competitor serum free formulations. (ANOVA – Newman-Keuls Post Test) (Figure 2).

Conclusions

- ▶ Corning hybrigro SF Medium is an ideal choice for proliferation of hybridoma cultures and the production of monoclonal antibodies.
- ▶ Higher MH677 cell densities can be achieved with hybrigro SF Medium as compared to other commercially available serum free hybridoma media.
- ▶ MH677 cells produce more mouse IgG2a per cell when grown in hybrigro SF Medium as compared to when grown in other commercially available serum free hybridoma media.

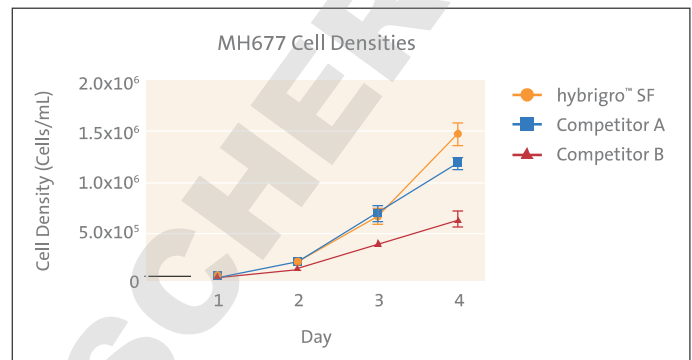


Figure 1. MH677 cell growth analysis: MH677 were cultured in hybrigro SF Medium along with two equivalent competitor formulations. MH677 cells showed significantly increased cell yields (cells/mL) by day four compared to competitors. (n = 9 ANOVA – Newman-Keuls Post Test).

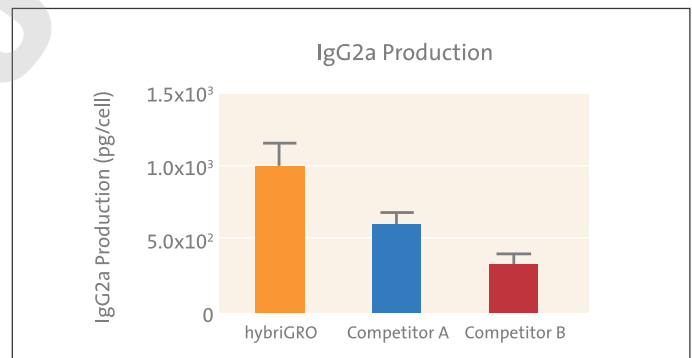
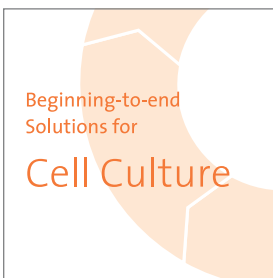


Figure 2. IgG2a production: On day four of the analysis aliquots were taken from each sample and IgG2A levels assessed. MH677 cells cultured in the hybrigro SF Medium showed statistically higher levels of IgG2A production compared to both competitive products used in the analysis (n = 9 ANOVA – Newman-Keuls Post Test).

Ordering Information

Cat. No.	Description	Size	Qty/Pk
40-215-CV	Corning® hybrigro™ SF	500 mL	1



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