

Development of serum-free medium for recombinant CHO cells producing recombinant antibody

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One of the most important considerations in animal cell cultivation is in determining the composition of the cell culture medium. Also, there has been extensive efforts to identify suitable alternatives to serum components. It is desirable to use serum-free medium due to the cost-effective supply of media and consistent production of therapeutic protein. Serum-free medium can be optimized for the physiological conditions in order to maximize cell growth and productivity of therapeutic protein.

Among mammalian cells, chinese hamster ovary (CHO) cells are one of the most frequently used cell lines for the expression of recombinant proteins that require post-translational modification to express full biological function. CHO cell line which are dihydrofolate reductase deficient (dhfr-) have been used extensively for this purpose.

In this study, a serum-free medium were developed for the production of recombinant antibody by rCHO cells and various components for the fortified medium were evaluated to enhanced the cell growth and productivity of recombinant antibody.