

## Effect of substitution of glucose and glutamine in rCHO cell culture medium

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The formulation of the culture medium for a Chinese hamster ovary (CHO) cell line has been investigated in terms of the simultaneous replacement of glucose and glutamine, the most commonly employed energy sources. In this study, sugar compounds in medium were substituted by galactose, mannose or fructose. For replacement of glutamine, a major source of ammonia, the use of glutamate was evaluated.

Among the different sugar compounds studied, galactose provides the best result, allowing increased antibody production, while no positive effect in cell growth was observed. Lactate, the major for metabolic product that is known to be toxic to the cells, was not produced. antibody productivity was observed when glutamine and glutamate were fortified. The results obtained here might be used to provide a fundamental strategy for medium development which is useful for recombinant therapeutic proteins from animal cell cultures.