Engineer medium and feed for modulating N-glycosylation of recombinant protein production in CHO cell culture

Chinese hamster ovary (CHO) cells have become the primary expression system for the production of complex recombinant proteins due to their long-term success in industrial scale production and generating appropriate protein N-glycans similar to that of humans. Control and optimization of protein N-glycosylation is crucial, as the structure of N-glycans can largely influence both biological and physicochemical properties of recombinant proteins. Protein N-glycosylation in CHO cell culture can be controlled and tuned by engineering medium, feed, culture process, as well as genetic elements of the cell. In this chapter, we will focus on how to carry out experiments for N-glycosylation modulation through medium and feed optimization. The workflow and typical methods involved in the experiment process will be presented.

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