

## **Production of Human Interleukin-6 Fused with NusA (NusA/hIL-6) in a Soluble Form by High Cell Density Culture of Recombinant *E. coli***

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The major objective of this study is to identify fed-batch culture conditions optimal for the production of human interleukin-6 fused with NusA (NusA/hIL-6) in a soluble form in *E. coli* cytoplasm. A series of pH-stat fed-batch cultures<sup>1)</sup> of *E. coli* BL21(DE3) transformed with the NusA/hIL-6 expression vector were conducted. As the amount of nitrogen source was increased in the feeding medium, the fraction of soluble NusA/hIL-6 increased about 4-folds, while the total amount was not significantly changed. Under the best conditions tested, about 90% of NusA/hIL-6 was produced in the soluble form. In this case, the concentration of soluble NusA/hIL-6 was 7.5 g/L with a volumetric productivity of 0.43 g/L-h. The expression of NusA/hIL-6 was confirmed by western blot analysis<sup>2)</sup>.

### **References**

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