

## Improvement of Soluble Expression Level of Recombinant Protein by Repressor in Inducible Promoter System

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### Abstract

Insoluble protein aggregate (inclusion body) is frequently accumulated during the heterologous protein expression by the bacterial inducible promoter system. Although many reports have proposed the methodology to circumvent the aggregate, an addition of the repressor for inducible promoter was tried just after the inducer was added, in order to improve the soluble expression level. The amounts of inducer and repressor and their addition times were investigated. Finally, over 60% of the total protein expression was found in the soluble fraction of total cell lysate; otherwise, all of the expressed proteins were accumulated as an inclusion body. These strategies might be able to apply to a heterologous protein expression which is prone to a protein aggregate formation in the cytoplasm.

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### References

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