

Vol. 117 (January–June 2014)



Bacterial magnetic particles (BacMPs) are ultrafine nano-sized magnetite crystals produced by magnetotactic bacteria, *Magnetospirillum magneticum* AMB-1. The techniques of functional protein display onto BacMPs by genetic engineering have been developed, and a variety of biomedical and environmental applications has been demonstrated. However, recombinant human proteins are often poorly expressed on BacMPs because of proteolytic degradation by endogenous proteases. In this study, to improve the amount of displayed heterologous proteins onto BacMPs, Kanetsuki et al. constructed *lon* gene deletion mutant (Δlon) strain. Consequently, the expression of target proteins was increased significantly in the Δlon strain. The constructed strain would be an efficient strain to display of heterologous proteins on BacMPs, and a useful tool for various applications.

For more information regarding this work, read the article: Kanetsuki et al., "**Enhanced heterologous protein display on bacterial magnetic particles using a *lon* protease gene deletion mutant in *Magnetospirillum magneticum* AMB-1**", *J. Biosci. Bioeng.*, Volume 116, Issue 1, Pages 65–70 (2013).

⇒ [JBB Archive](#)