

**Differential protein expression of a streptomycin-resistant  
*Streptomyces albulus* mutant in high yield production of  $\epsilon$ -  
poly-L-lysine: a proteomics study**

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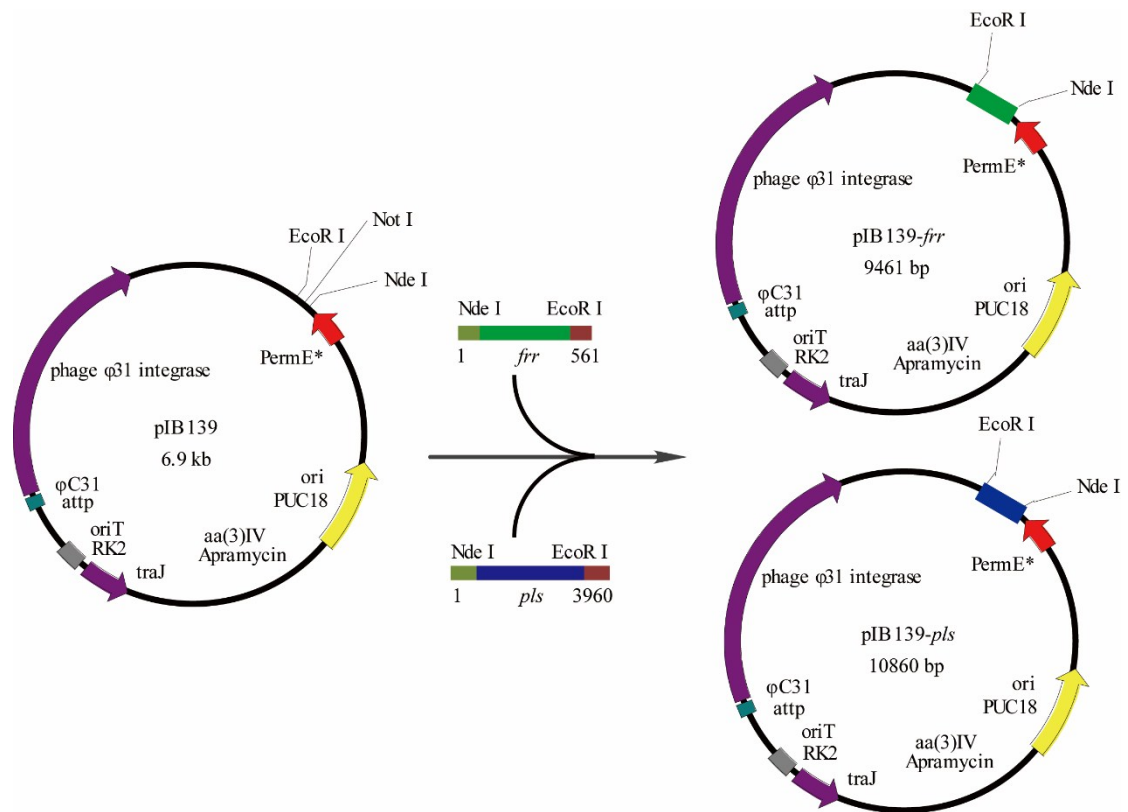
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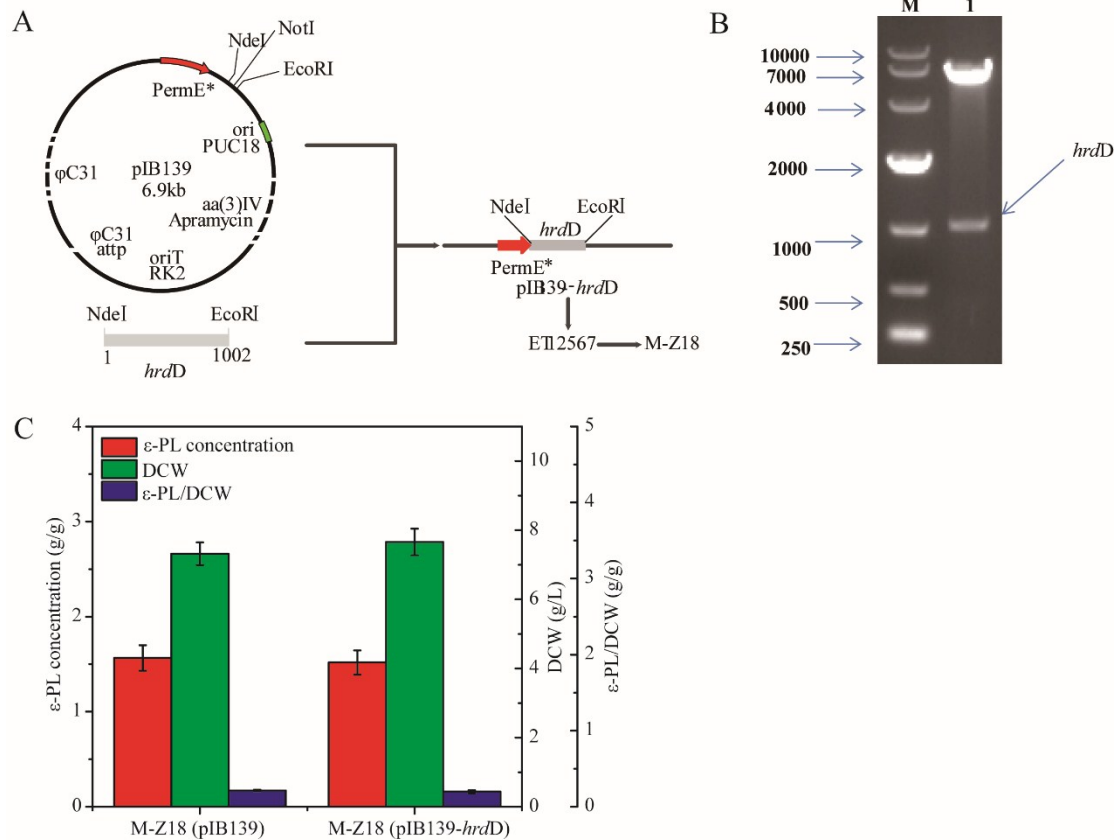
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**Supplementary File 1** Genes *frr* and *pls* in combination into the integrating vector pIB139, respectively. Promoter *ermE\** is a strong constitutive promoter for expression in *S. albulus* M-Z18.



Supplementary Files 2 Fermentation parameters of the parent strain and recombinant strain. A, Construction of the recombinant strain M-Z18 (pIB139-*hrdD*); B, Verification of overexpression vector pIB39-*hrdD* by double enzyme digestion (M: Marker; 1: pIB-*hrdD*); C, Fermentation parameters of the parent strain *S. albulus* M-Z18 and overexpressed strain *S. albulus* M-Z18-*hrdD*.



Supplementary Files 3 Cultivation characteristics of M-Z18 and SS-62 in solid and liquid cultures. A, M-Z18; B, SS-62. 1, 4: colony characterized by camera and scanning electron microscope (SEM); 2, 5: spore characterized by camera and SEM; 3, 6: mycelial pellet characterized by microphotography and SEM.

