

# Enhanced Production of Acid Phosphatase in *Bacillus subtilis*: From Heterologous Expression to Optimized Fermentation Strategy

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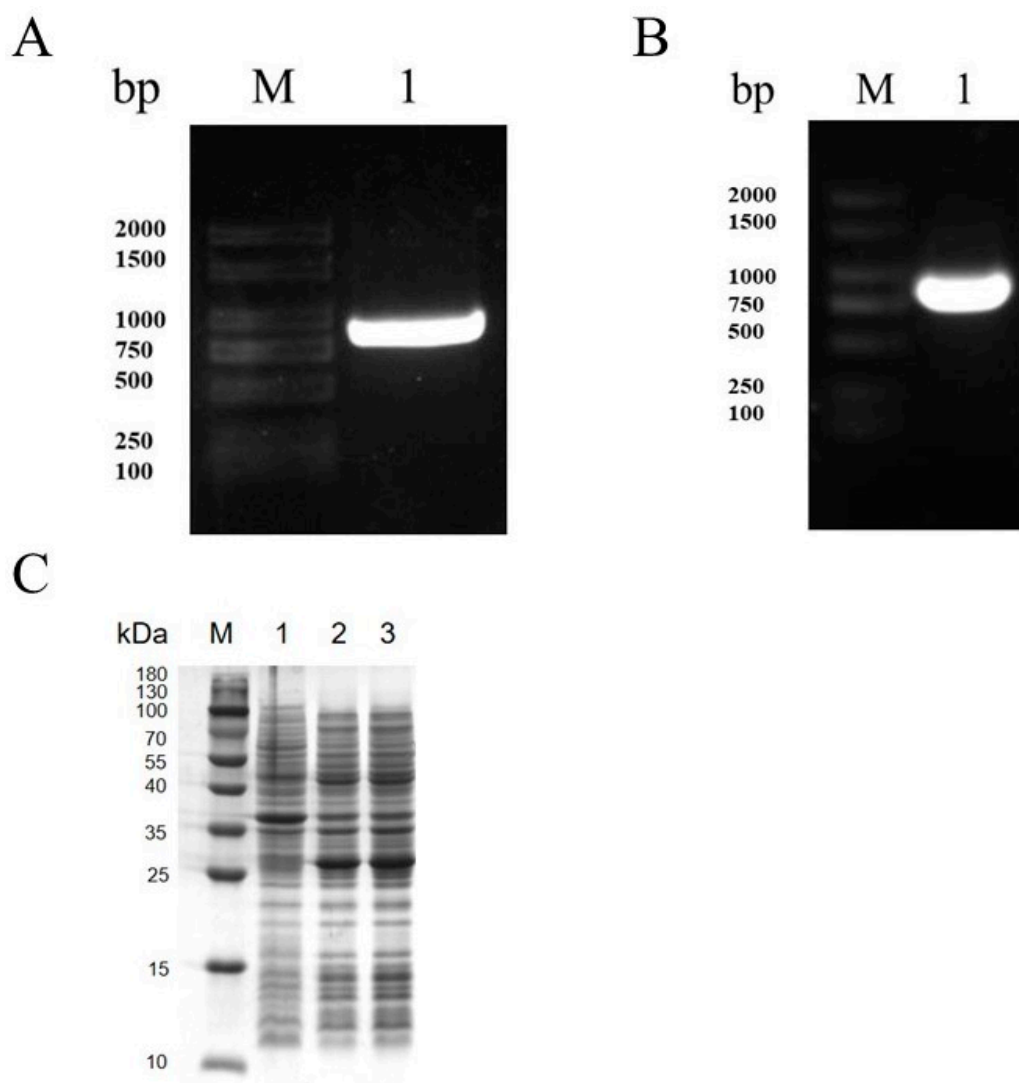


Figure S1 Recombinant *Bacillus subtilis* expressing acid phosphatase. (A) Amplification product of ACPase gene (M: Marker DL2000; Lane 1: ACPase gene). (B) Colony PCR verification (M: Marker DL2000; Lane 1: *Acp* gene). (C) SDS-PAGE analysis of acid phosphatase (M: Marker; Lane 1: whole proteins in *B. subtilis* 168/pMA5, Lane 2 and Lane 3: whole proteins in *B. subtilis* 168/pMA5-*Acp*).

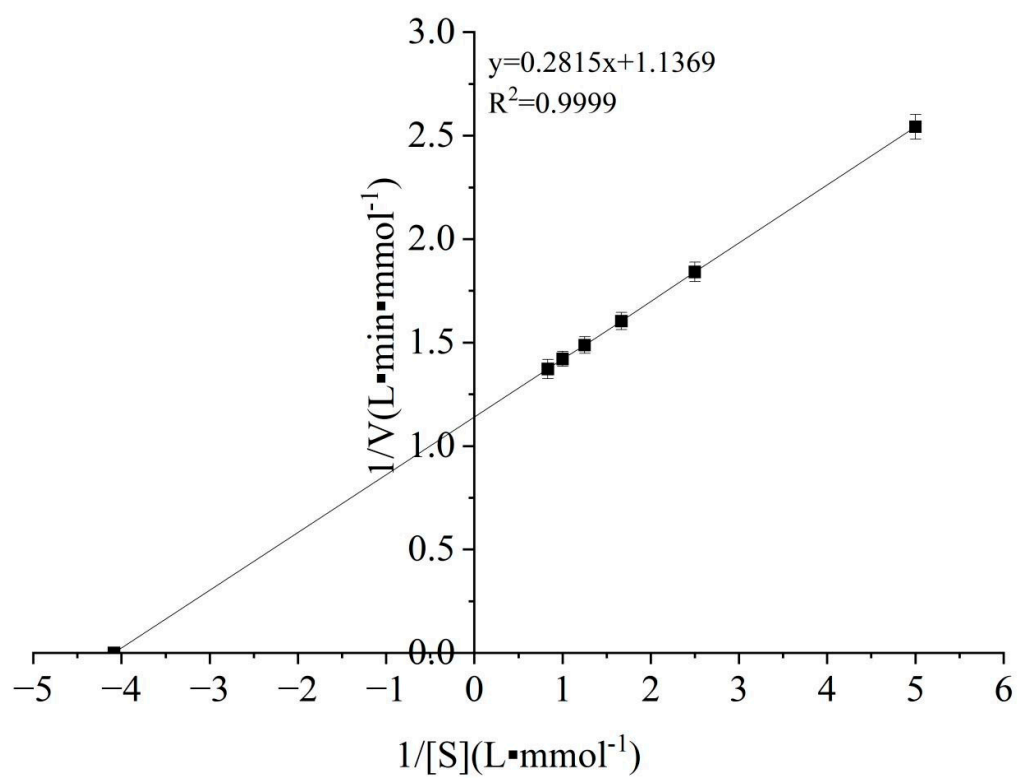


Figure S2 Determination of  $K_m$  of ACPase by Lineweaver-Burk plot.

**Table S1 The purification of enzyme ACPase**

Purification steps	Total protein (mg)	Total activity (U)	Enzyme activity (U/mL)	specific activity (U/mg)	Purification factor	Recovery rate (%)
Crude enzyme solution	31.83	1897.2	18.97	59.6	1	100
Ni column purification	6.68	866.2	86.62	129.6	2.17	45.7