**Supplementary Materials:** The following are available online at www.mdpi.com/xxx/s1, Figure S1: Evolutionary tree of amino acid transporter gene in *Bacillus licheniformis* from NCBI. Figure S2: Cell growth in minimal medium with free L-Asp as the only carbon and nitrogen source.



Figure S1: Evolutionary tree of amino acid transporter gene in *Bacillus licheniformis* from NCBI.



Figure S2: Cell growth in minimal medium with free L-Asp as the only carbon and nitrogen source. (A) The growth curve of wild-type strain (solid square), strain BldF (solid circle), strain BldW (solid regular triangle) and strain BldA (solid inverted triangle); (B) (C) (D) Strains BlpHY (solid squares), transporter gene single knockout strains with empty plasmids (solid circles) and transporter gene single knockout strains with P*shuttle09* promoter mediated transporter gene overexpression plasmids, which means the transporter gene is supplemented and expressed in the strains with single knock-out transporter gene (solid equi-lateral triangle); (B) Strain BldFpS09F; (C) Strain BldWpS09W; (D) Strain BldApS09A.