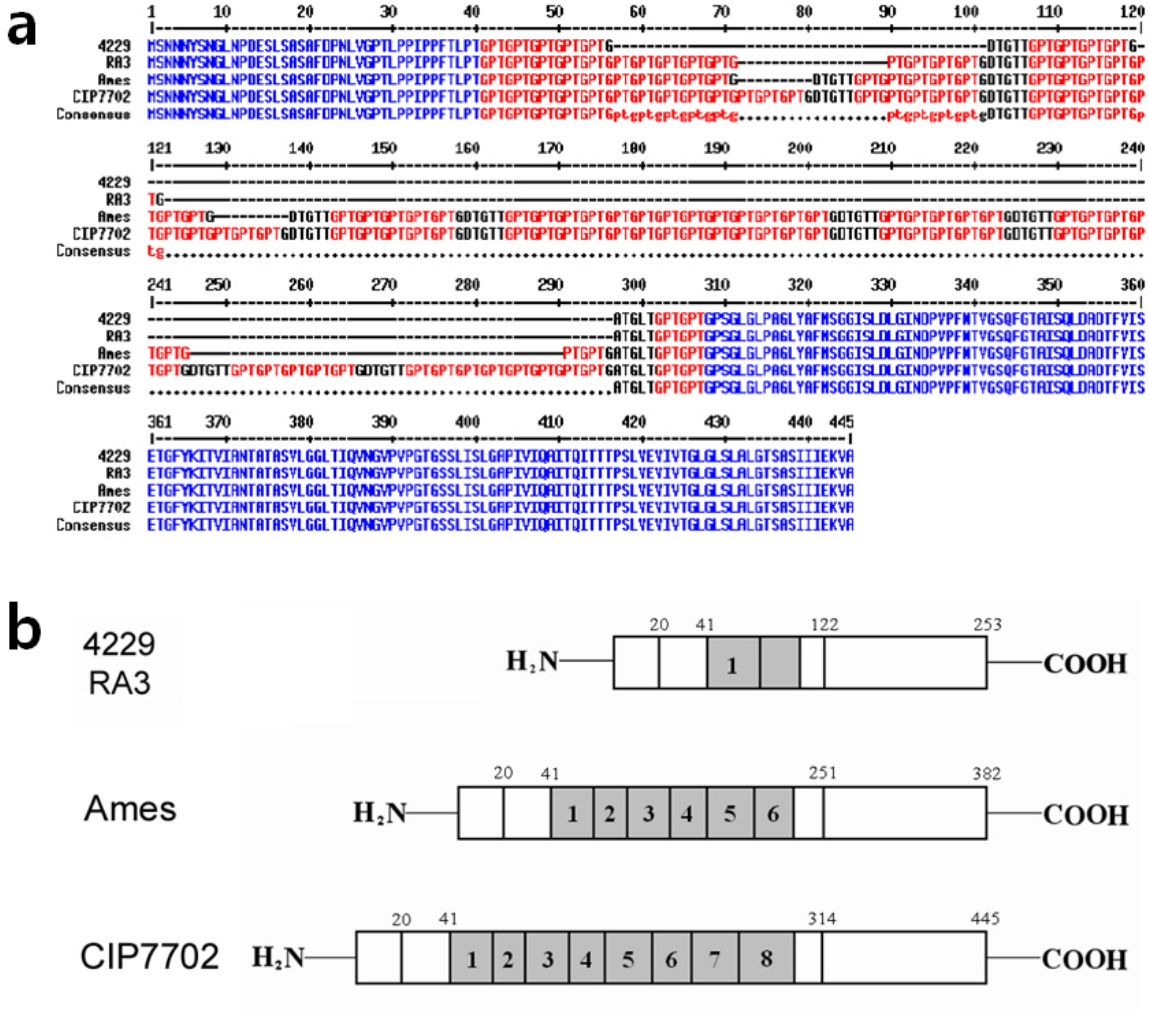

Figure S1. Multiple alignments of several BclA proteins and schematic representation of the BclA protein consisting of GXX triplet motifs. (a) Multiple alignment of BclA amino acid sequences. Blue amino acids, N- and C-terminal conserved region; Red amino acids, GPT triplet motif; Black amino acids, GXX triplet, (b) GXX triplet motifs are in shaded in grey. 4229, *Bacillus anthracis* ATCC4229 strain (NCBI accession number CAD56880); RA3, *B. anthracis* RA3 strain (NCBI accession number CAD56878); Ames, *B. anthracis* Ames strain (NCBI accession number CAD56869); CIP7702, *B. anthracis* Sterne CIP7702 strain (NCBI accession number CAD56870).

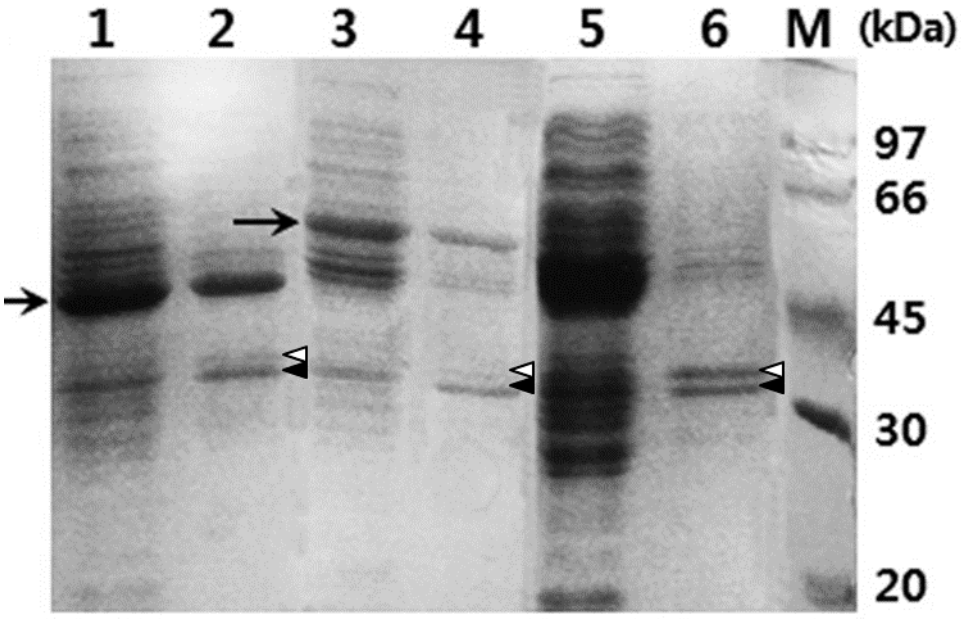

Figure S2. SDS-PAGE analysis for the expression of lipase (Lip1) in three different BclA anchoring systems. Lane M, molecular protein size marker (kDa); Lanes 1 and 2, *E. coli* JM109 harboring pTac99a; Lanes 3 and 4, *E. coli* JM109 harboring pTJ1-BAN-Lip1; Lanes 5 and 6, *E. coli* JM109 harboring pTJ1-BANC-Lip1; Lanes 7 and 8, *E. coli* JM109 harboring pTJ1-BAF-Lip1. Lanes 1, 3, and 5, total proteins fraction; Lanes 2, 4 and 6, outer membrane proteins fraction. In lanes 1 and 3, arrows indicates BAN-Lip1 (46.4 kDa) and BANC-Lip1 (61.9 kDa), respectively. Closed and open arrowheads indicate the OmpA and OmpC proteins bands in outer membrane proteins fraction, respectively. We want to emphasize that the results obtained with lipase were rather significantly variable during multiple experiments due to unknown reasons.

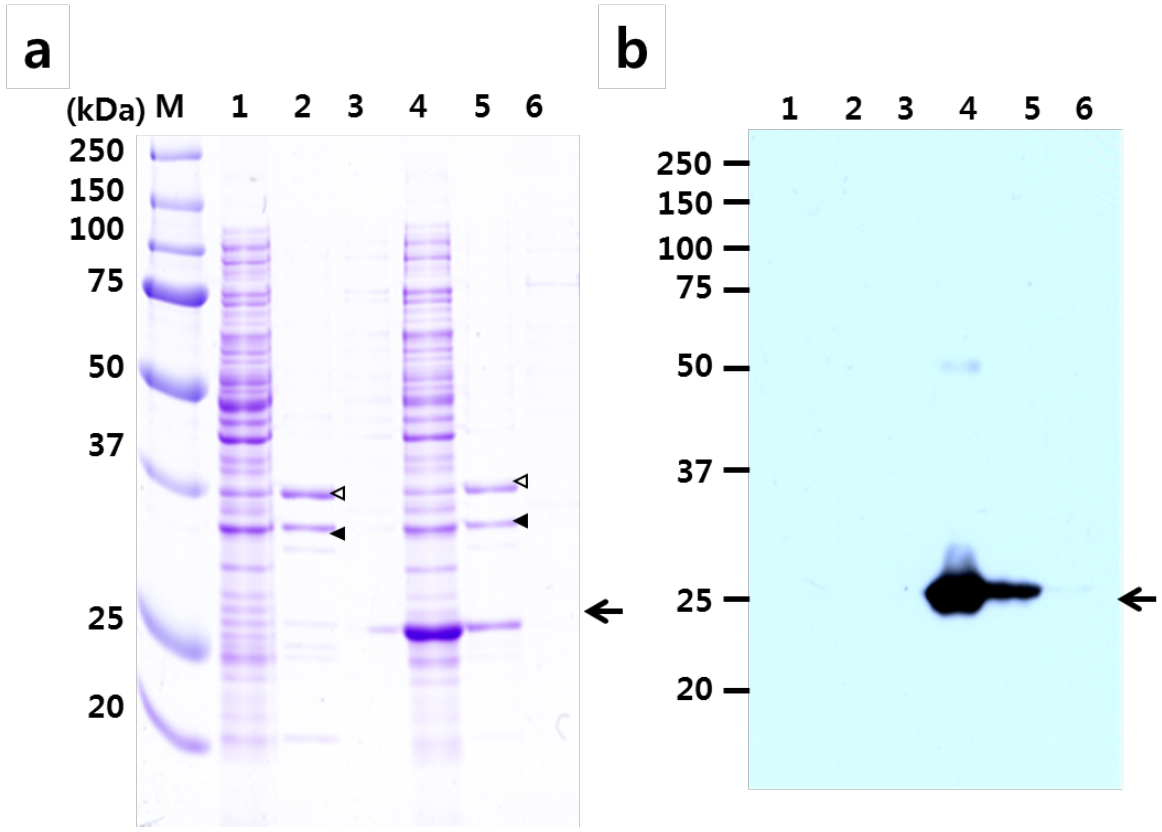

Figure S3. Display of endoxylanase on the cell surface. (a) SDS-PAGE analysis and (b) western blotting analysis of *E. coli* displaying BAN-fused XynA. Lane M, molecular weight size markers; Lanes 1 to 3, *E. coli* harboring pTJ1-BAN (without XynA); lane 4 to 6, *E. coli* harboring pTJ1-BAN-XynA. Lanes 1 and 4, total proteins; Lanes 2 and 5, outer membrane protein fractions; Lanes 3 and 6, culture supernatants. The culture supernant analysis, 10 times concentrated samples were loaded on PAGE gel. Arrows indicate the BAN-fused endoxylanase. Closed and open arrowheads indicate the OmpA and OmpC proteins bands in outer membrane proteins fraction, respectively. In (b), one faint band is shown at ~50 kDa size. We think this is not a dimerized form of BAN-fused endoxylanase (~24 kDa) but just an artifact by non-specific binding because SDS-PAGE experiment was done in reducing condition with boiling, and so the dimerized form cannot be detected.

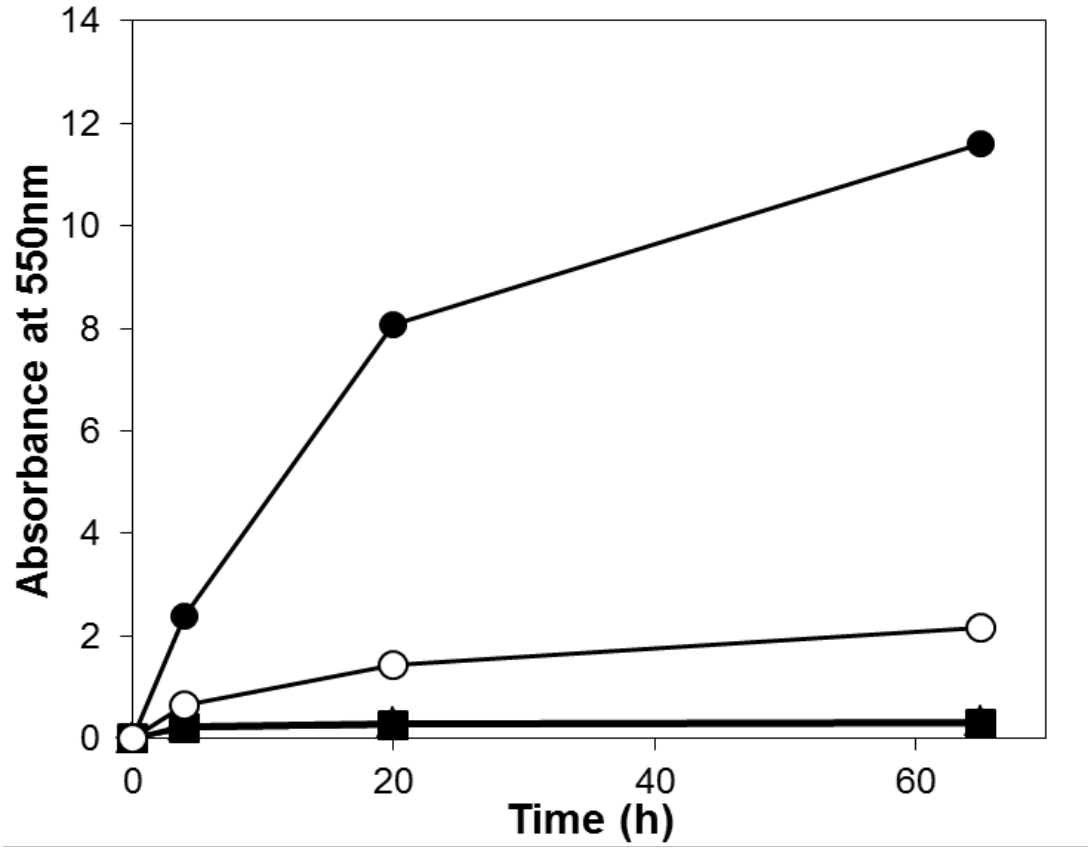

Figure S4. Endoxylanase activity. Symbols:♦, PBS solution as a negative control; ■, cells harboring pTJ1-BAN; ▲, Culture supernatant of cells harboring pTJ1-BAN; ●, cells harboring pTJ1-BAN-XynA ; ○, Culture supernatant of cells harboring pTJ1-BAN-XynA.