

Supplementary materials for the article:

Ma Z. et al. A Novel LysR Family Factor STM0859 is Associated with The Responses of *Salmonella* Typhimurium to Environmental Stress and Biofilm Formation  
Pol J Microbiol. 2021, Vol. 70, No 4, 479–487

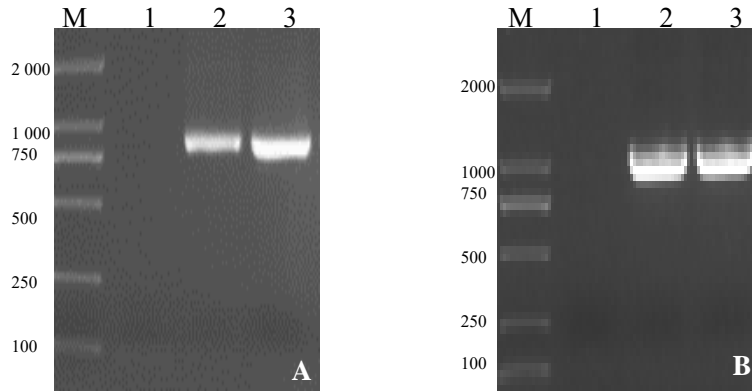


Fig. S1. Screening and identification of pKD46 plasmid and target fragment by PCR amplification. A) M – standard DNA marker DL-2000 (2000, 1000, 750, 500, 250, 100), 1 – negative control, 2 – positive control, 3 – pKD46 positive transformants; B) M – standard DNA marker DL-2000 (2000, 1000, 750, 500, 250, 100), 1 – negative control, 2 – positive control, 3 – target fragment positive transformants.

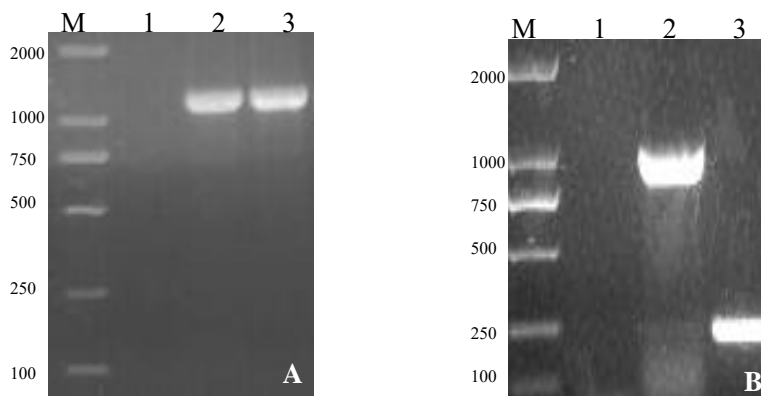


Fig. S2. Screening and identification of positive colony transferred by pCP20 plasmid and  $\Delta$ STM0859 deletion strain by PCR amplification. A) M – standard DNA marker DL-2000 (2000, 1000, 750, 500, 250, 100), 1 – negative control, 2 – positive control, 3 – pCP20 positive transformants; B) M – standard DNA marker DL-2000 (2000, 1000, 750, 500, 250, 100), 1 – negative control, 2 – ST-SL1344 positive control, 3 – ST- $\Delta$ STM0859 deletion mutant strain.

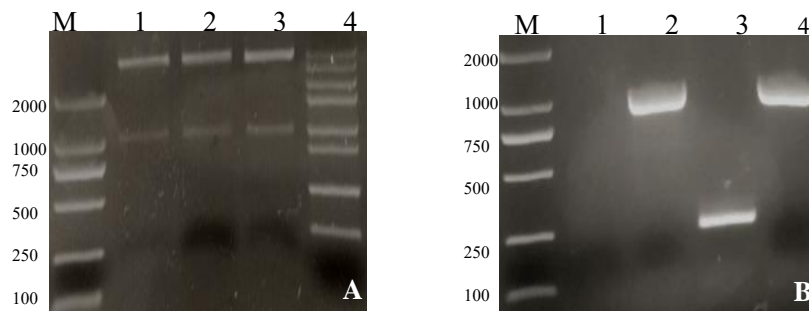


Fig. S3. Screening and identification of complement strains  $ST-\Delta STM0859/STM0859$  by enzyme digestion and PCR amplification. A) M – Standard DNA marker DL-2000 (2000, 1000, 750, 500, 250, 100), 1–3 – pBR322-*STM0859* digested by restriction enzymes, 4 – standard DNA marker DL-5000 (5000, 3000, 2000, 1500, 1000, 800, 500, 300); B) M – standard DNA marker DL-2000 (2000, 1000, 750, 500, 250, 100), 1 – negative control, 2 – ST-SL1344, 3 –  $ST-\Delta STM0859$ ; 4 –  $ST-\Delta STM0859/STM0859$ .

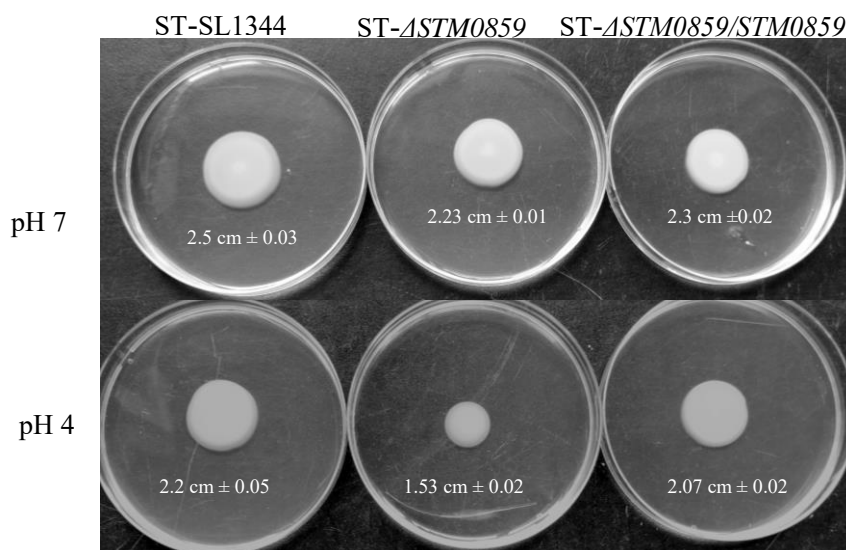


Fig. S4. Determination of the motility of ST-SL1344,  $ST-\Delta STM0859$  and  $ST-\Delta STM0859/STM0859$  in semi-solid medium with different pH.

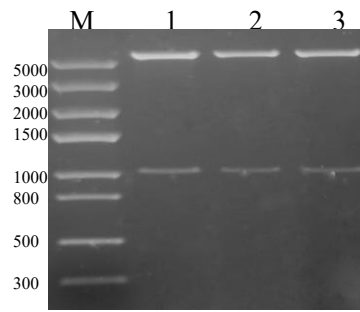


Fig. S5. Screening and identification of recombinant plasmid pET-STM0859 by restriction enzyme digestion; M – standard DNA marker DL-5000 (5000, 3000, 2000, 1500, 1000, 800, 500, 300), 1–3 – pET-STM0859 digested by *EcoR* I and *Xho* I.

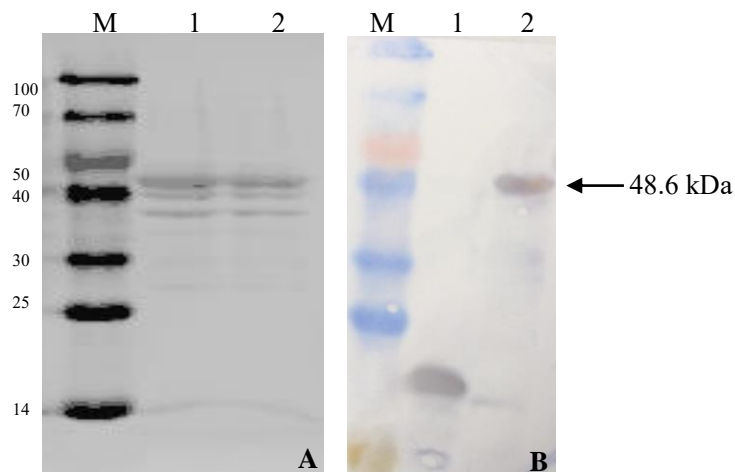


Fig. S6. SDS-PAGE and Western blot analysis of recombinant STM0859 protein expressed in BL21 (DE3) strain of *E. coli*. M – Standard protein marker (100, 70, 50, 40, 30, 25, 14 kDa); A) 1–2 – analysis of expressed recombinant protein STM0859 by SDS-PAGE; B) 1 – BL21 (DE3) strain of *E. coli* transformed by pET-32a as a control, 2 – Western blot analysis of STM0859 recombinant protein.