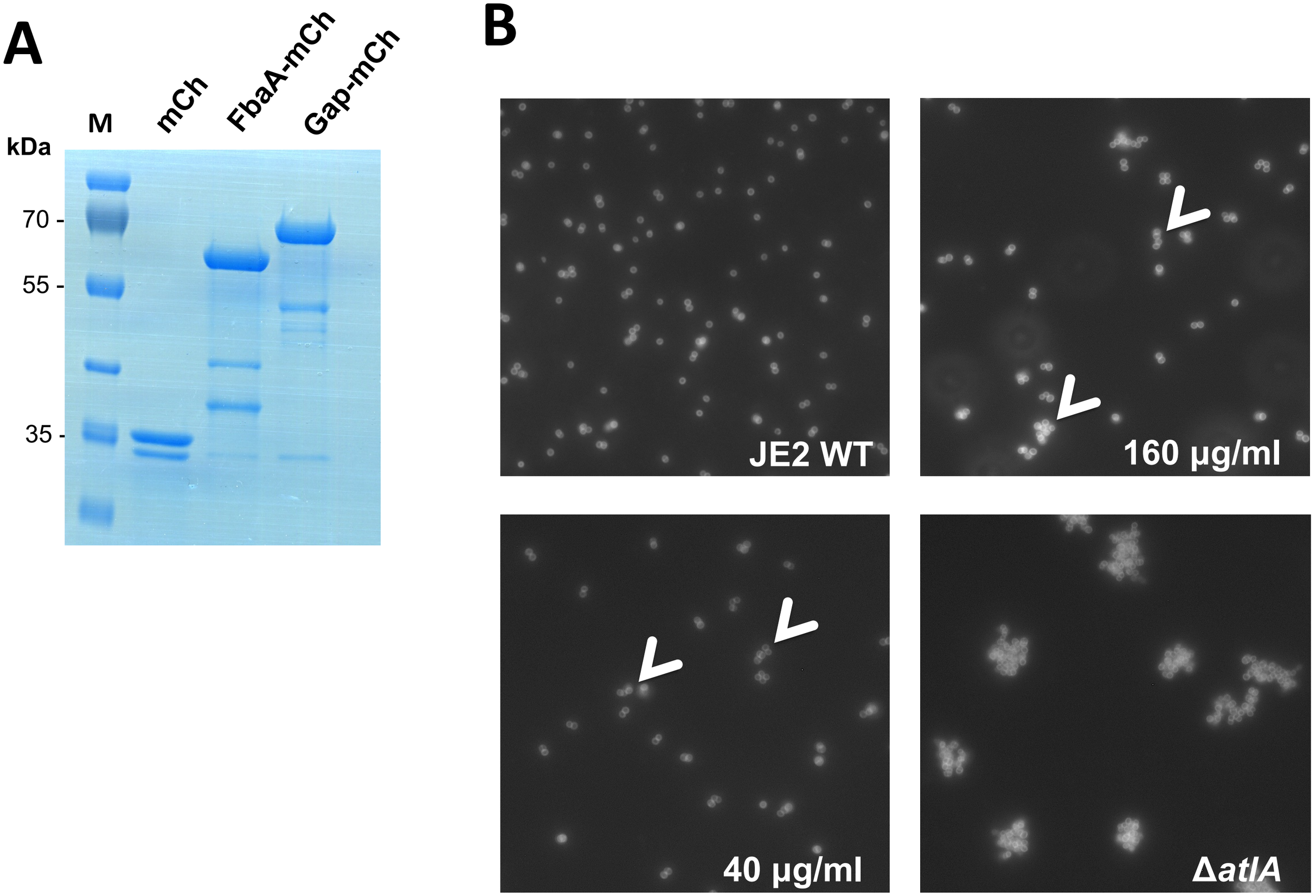
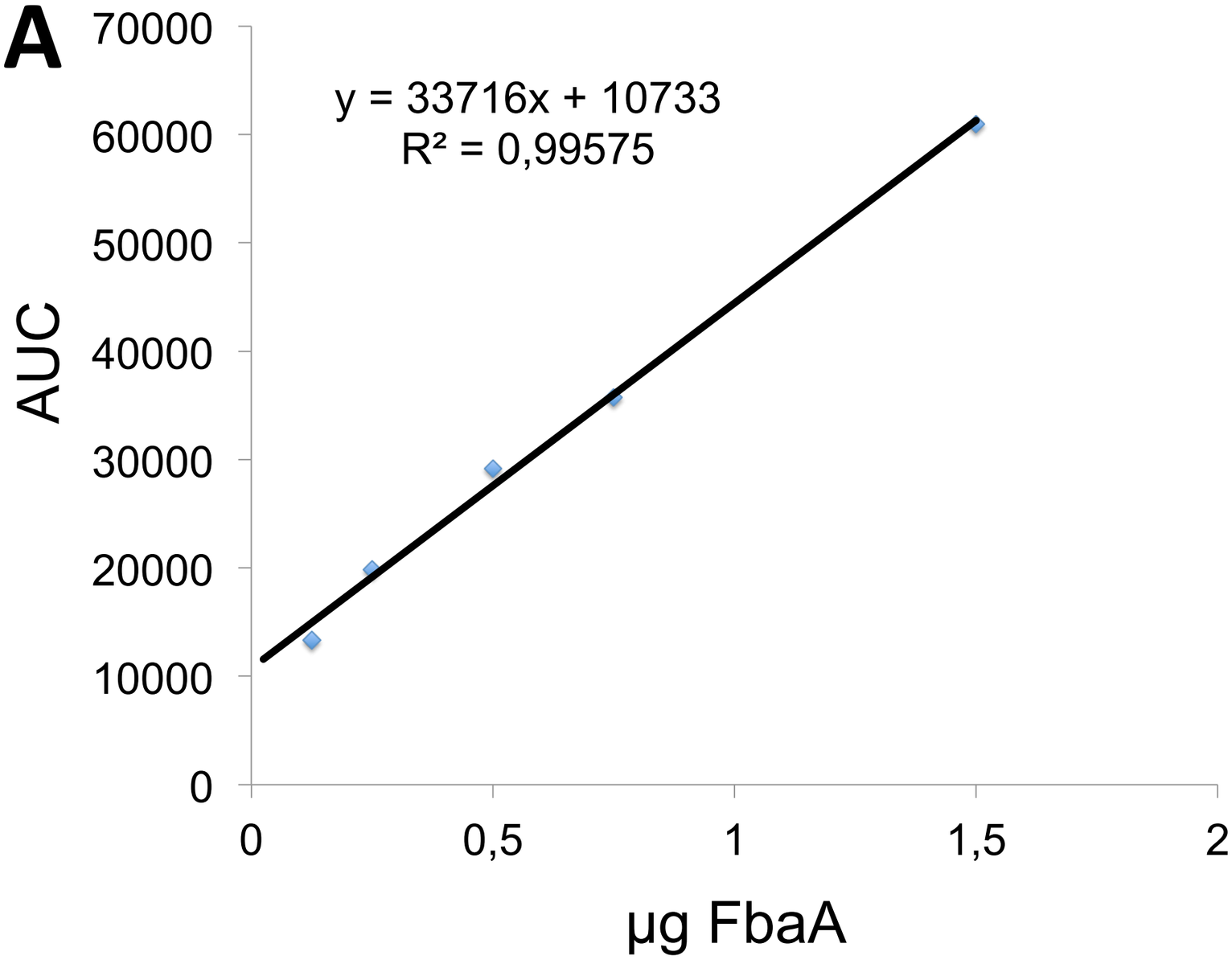


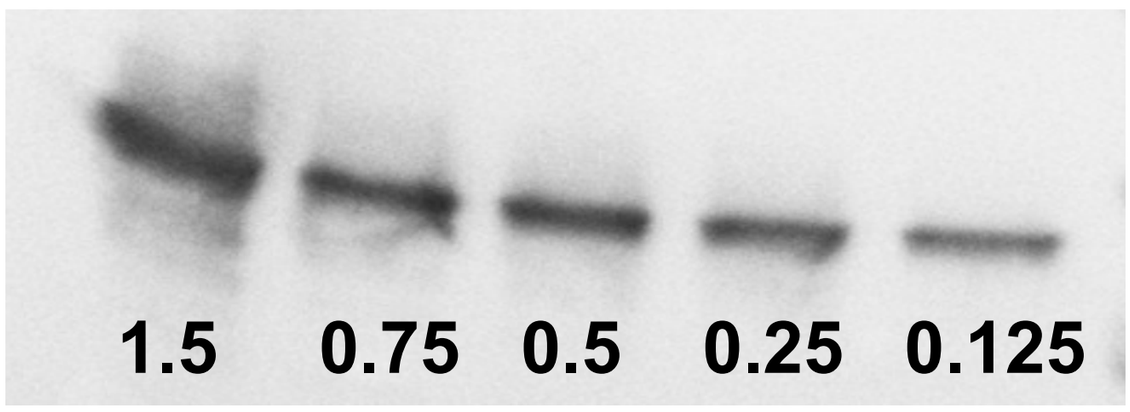

**Fig. S1** (**A**) Streptag purified mCh, FbaA-mCh and GapDH-mCh. (**B**) JE2 grown in absence and presence of FbaA and GapDH and atlA Tn mutant. In presence of FbaA and GapDH, cells are prone to form clusters.

Fig. S1

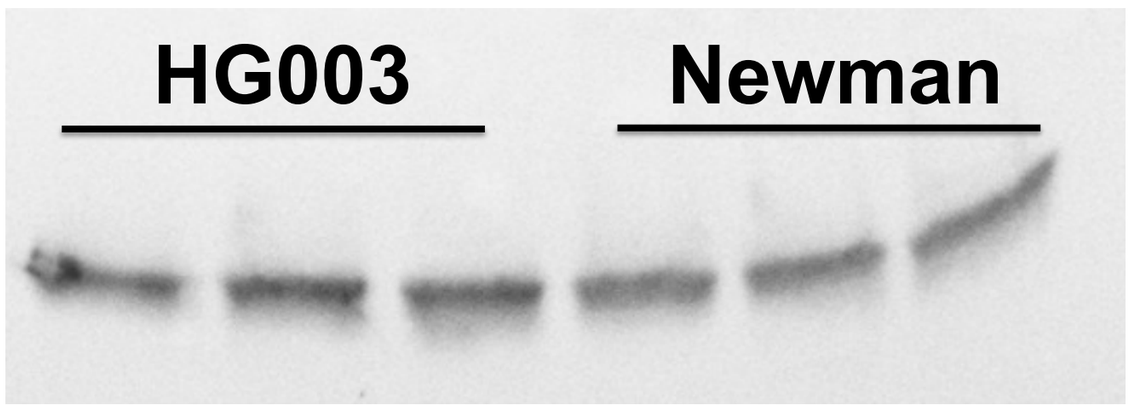
**A**




**B**




**C**



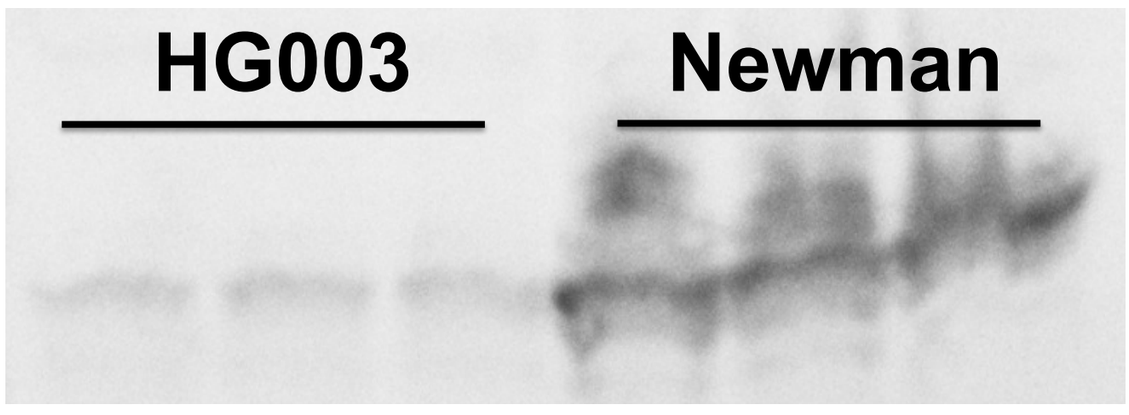




**Fig. S2 Quantification of FbaA by Western blot**. **(A)** Standard curve of purified FbaA, AUC (area under the curve) **(B)** Western blot of standard samples with different concentrations. **(C)** Western blot from lysostaphin lysed cells. **(D)** Western blot from supernatant samples

Table S1. Strains used in this study

| Bacterial strain | Description | Reference |
|---|---|---|
| *S. aureus* USA300 JE2 | Wild type | (1) |
| *S. aureus* USA300 JE2 Δ*spa* | Markerless deletion of the *spa* locus | This study |
| *S. aureus* HG001 Δ*spa* | Markerless deletion of the *spa* locus | (2) |
| *S. aureus* HG003 Δ*spa* | Markerless deletion of the *spa* locus | This study |
| *S. aureus* Newman Δ*spa* | Markerless deletion of the *spa* locus | This study |
| *S. aureus* COL Δ*spa* | Markerless deletion of the *spa* locus | This study |
| *S. aureus* SA113 Δ*spa* | Markerless deletion of the *spa* locus | This study |
| *S. aureus* SA113 ΔatlA | Markerless deletion of the AtlA. | (3) |
| *S. aureus* SA113 Δ*spa* Δ*srtA* | Markerless deletion of the *spa* locus. Deletion of srtA | (4) |
| *S. aureus* SA113 Δ*spa* Δ*atlA* | Markerless deletion of the *spa* locus. Deletion of AtlA | (5) |
| *S. carnosus* TM300 | Wild type | (6) |
| *S epidermidis O-47* | Wild type | (7) |
| *S. aureus* SA113 Δ*spa* pCtufamp-*fbaA-strep* | Constitutive expression of FbaA-strep | This study |
| *S. aureus* SA113 Δ*spa* pCtufamp-*gapDH-strep* | Constitutive expression of GapDH-strep | This study |
| *E. coli* DC10B pCtufamp-*mCh-strep* | Constitutive expression of mCh-strep | This study |
| *E. coli* DC10B pCtufamp-*gapDH-mCh-strep* | Constitutive expression of GapDH-mCh-strep | |
| *E. coli* DC10B pCtufamp-*fbaA-mCh-strep* | Constitutive expression of FbaA-mCh-strep | This study |
| *E.coli M15* pEQ-*amiE* | | (3) |
| *E.coli M15* pEQ-*amiE-R1,2* | | (3) |
| *E.coli M15* pEQ-*glucosaminidase* | | (3) |

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Table S2. Primers used in the study

| Primer name | Sequence |
|---|---|
| | |
| up_fwd_Δspa | CAGATCTGTCGACGATATCGTGCATATACAAGGAGATAAAAC |
| up_rev_Δspa | TTTATAGTTCCTTTTTCAAATTAATACCCCCTG |
| down_fwd_Δspa | TTTGAAAAAGGAACTATAAAAACAAACAATACACAAC |
| down_rev_Δspa | GGCATGCAAGCTTGATATCATCGCAAAATATAAGTTGAAATAG |
| fbaAFwd_fbamCh | GTTCGAGGAGGTTTAATTAATGCCTTTAGTTTCAATGAAAG |
| fbaARev_fbamCh | TTGCTCACTTTAGCGCGGTTTGAAGTAC |
| mCh_fwd_fbamCh | GCGCTAAAGTGAGCAAGGGCGAGGAG |
| mCh_rev_ECPfusstrep | TAAGTACTTCAGCTAATTAAGCTTATTTTTCAAATTGTGGATGTGACCACTTGTACAGCTCGTCCATGC |
| gapFwd_fbamCh | GTTCGAGGAGGTTTAATTAATGGCAGTAAAAGTAGCAATTAATG |
| gapRev_fbamCh | TTGCTCACTTTAGAAAGTTCAGCTAAGTATG |
| mCh_fwd_gapmCh | ACTTTCTAAAGTGAGCAAGGGCGAGGAG |