Supplementary Material

β-Lactam Antibiotics with a High Affinity for PBP2 Act Synergistically with the FtsZ-Targeting Agent TXA707 against Methicillin-Resistant *Staphylococcus aureus*

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SUPPLEMENTAL FIGURES

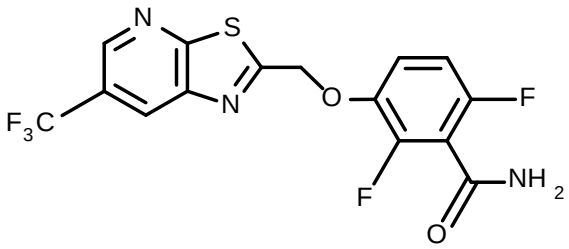

FIG S1 Chemical structure of TXA707.

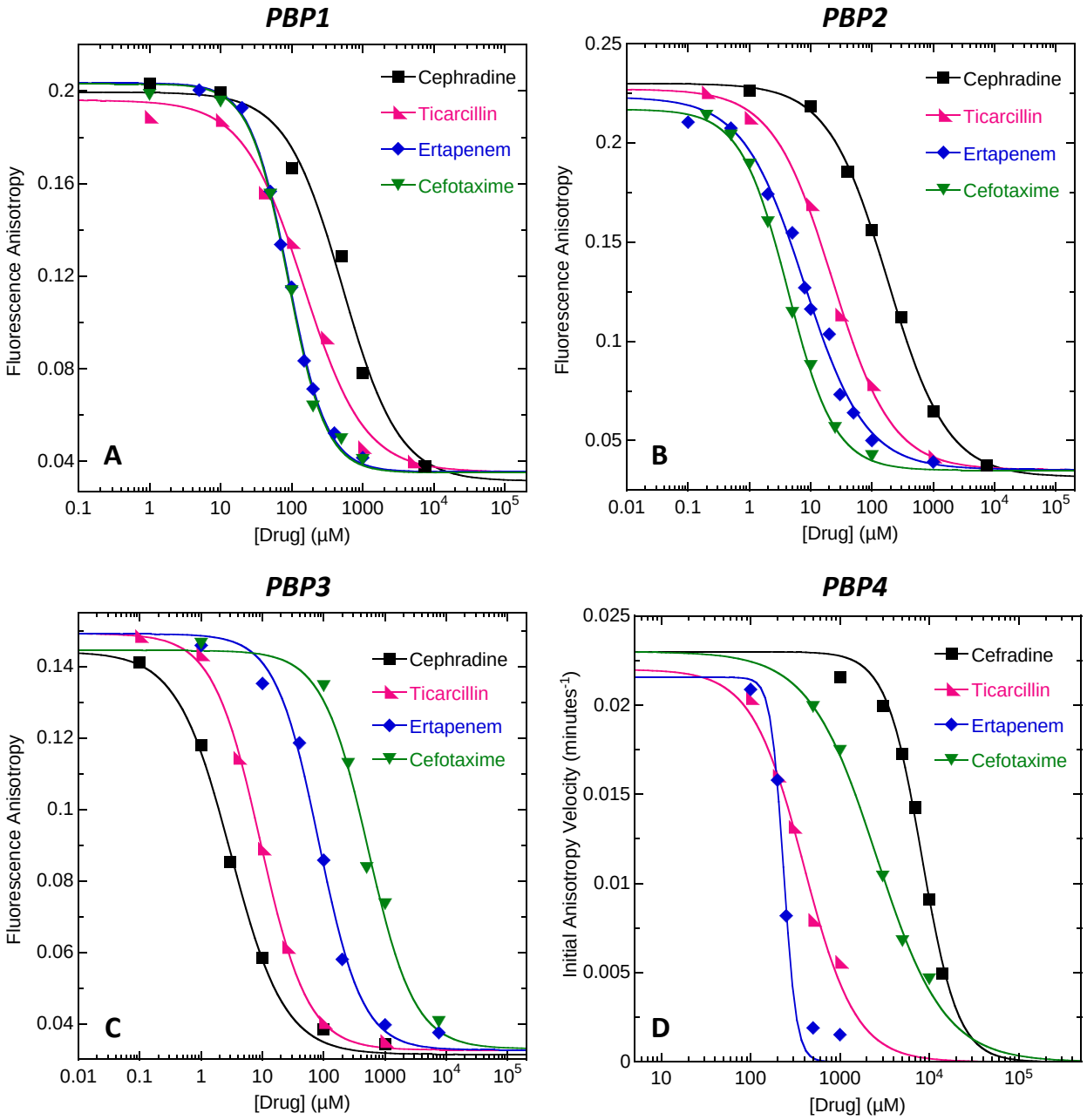

FIG S2 (A-C) Fluorescence anisotropy of 1 μM Bocillin in the presence of the indicated β-lactam antibiotic and 2 μM of either PBP1 (A), PBP2 (B), or PBP3 (C). (D) Initial anisotropy velocity of 1 μM Bocillin in the presence of the indicated β-lactam and 50 μM PBP4. The solid lines reflect the nonlinear least squares fits of the data with Eq. 1. Experimental conditions were as described in the legends to Figs. 1 (for PBP1, PBP2, and PBP3) and 2 (for PBP4).

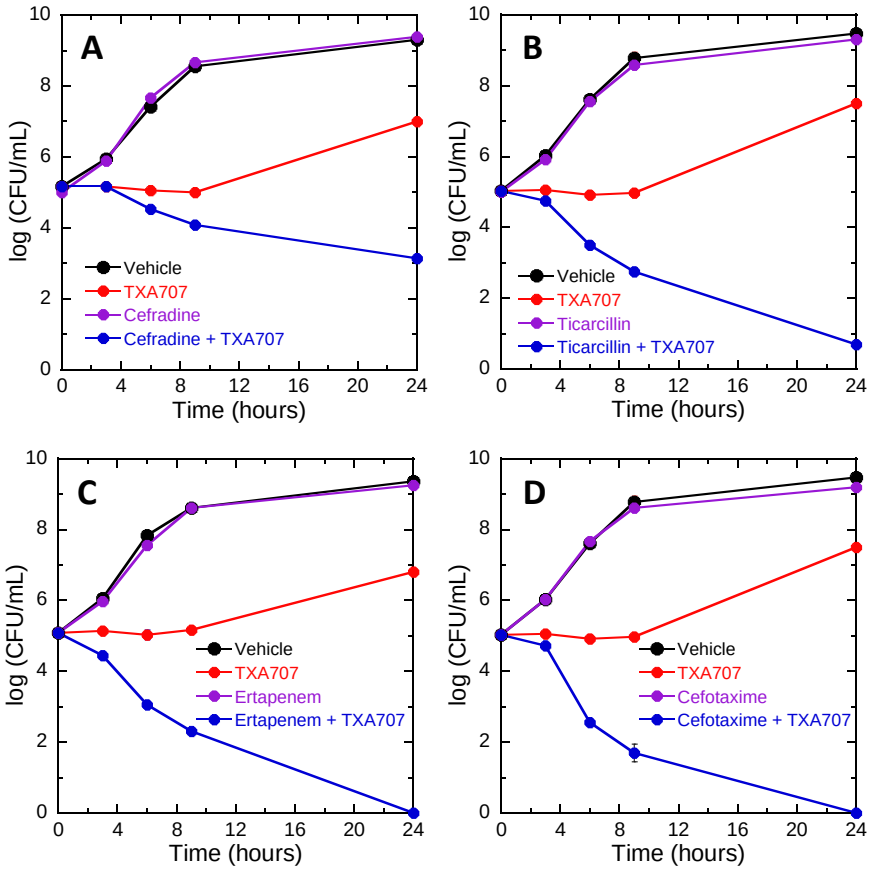

FIG S3 Time-kill curves for MRSA COL showing synergy between TXA707 and cefradine (A), ticarcillin (B), ertapenem (C), or cefotaxime (D). Bacteria were treated with DMSO vehicle (black), β-lactam alone at 0.008x MIC (violet), TXA707 alone at 0.5x MIC (red), or a combination of β-lactam at 0.008x MIC and TXA707 at 0.5x MIC (blue).

SUPPLEMENTAL TABLE

TABLE S1 Oligonucleotide primers used for the cloning of the four native PBP proteins of *S. aureus* in *E. coli*

Name	Sequence (5'→3')
pbp1-HiFi-F	TCAGTGGTGGTGGTGGTGGTGGTCCGACTTATCCTTGTC
pbp1-HiFi-R	TTTAAGAAGGAGATATACATATGATCATGATTACTGGACATTCTAA
pbp2-HiFi-F	TTTAAGAAGGAGATATACATATGGCTTGGAAAGCACCTGCTT
pbp2-HiFi-R	TCAGTGGTGGTGGTGGTGGTGGTTGAATATACCTGTTAATCCACC
pbp3-HiFi-F	TTTAAGAAGGAGATATACATATGCAAATCGCACAAGGCTCAC
pbp3-HiFi-R	CAGTGGTGGTGGTGGTGGTGCTCGAGTTTGTCTTTGTCTTTATTTTTATCATCTTTAC
pbp4-HiFi-F	CTTTAAGAAGGAGATATACATATGTATCGACAAGCTACTAAC
pbp4-HiFi-R	CAGTGGTGGTGGTGGTGGTGCTCGAGATGTTCTTCCCACATACTTTTAG

The underlined sequence reflects the vector complementary sequence.