

**Table S1.**  $A$  (maximum OD<sub>595</sub>),  $\mu_m$  (maximum specific growth rate; h<sup>-1</sup>) and  $\lambda$  (lag time; h) values and error standard of the modified Gompertz model obtained from 3 independently growth curves of *Staphylococcus aureus* subsp. *aureus* USA300\_FPR3757 (SaWT) (A) and SaROEO at different concentrations of OEO. The goodness of the fit is shown by  $R^2$  and adjusted  $R^2$  values and the root mean square error ( $RMSE$ ).

**A) SaWT**

| OEO<br>( $\mu\text{L/L}$ ) | Values |             |           | Standard error |             |           | Goodness of fit |            |        |
|----------------------------|--------|-------------|-----------|----------------|-------------|-----------|-----------------|------------|--------|
|                            | $A$    | $\mu_{max}$ | $\lambda$ | $A$            | $\mu_{max}$ | $\lambda$ | $R^2$           | Adj. $R^2$ | $RMSE$ |
| <b>0</b>                   | 1.294  | 0.248       | 2.902     | 0.012          | 0.019       | 0.228     | 0.9841          | 0.9832     | 0.0550 |
| <b>250</b>                 | 1.276  | 0.238       | 6.468     | 0.014          | 0.015       | 0.215     | 0.9897          | 0.9891     | 0.0517 |
| <b>500</b>                 | 1.293  | 0.229       | 8.239     | 0.013          | 0.011       | 0.162     | 0.9942          | 0.9938     | 0.0407 |
| <b>750</b>                 | 1.324  | 0.181       | 11.410    | 0.030          | 0.008       | 0.170     | 0.9920          | 0.9916     | 0.0470 |
| <b>1000</b>                | 1.262  | 0.183       | 15.000    | 0.032          | 0.006       | 0.099     | 0.9964          | 0.9961     | 0.0251 |
| <b>1250</b>                | 1.185  | 0.161       | 17.430    | 0.038          | 0.008       | 0.149     | 0.9893          | 0.9887     | 0.0295 |

**B) SaROEO**

| OEO<br>( $\mu\text{L/L}$ ) | Values |             |           | Standard error |             |           | Goodness of fit |            |        |
|----------------------------|--------|-------------|-----------|----------------|-------------|-----------|-----------------|------------|--------|
|                            | $A$    | $\mu_{max}$ | $\lambda$ | $A$            | $\mu_{max}$ | $\lambda$ | $R^2$           | Adj. $R^2$ | $RMSE$ |
| <b>0</b>                   | 1.268  | 0.254       | 3.319     | 0.010          | 0.018       | 0.191     | 0.9888          | 0.9881     | 0.0465 |
| <b>250</b>                 | 1.287  | 0.217       | 4.776     | 0.013          | 0.014       | 0.215     | 0.9895          | 0.9889     | 0.0494 |
| <b>500</b>                 | 1.295  | 0.218       | 6.311     | 0.019          | 0.015       | 0.251     | 0.9871          | 0.9863     | 0.0576 |
| <b>750</b>                 | 1.271  | 0.244       | 6.876     | 0.018          | 0.021       | 0.271     | 0.9835          | 0.9825     | 0.0660 |
| <b>1000</b>                | 1.280  | 0.2518      | 7.884     | 0.018          | 0.020       | 0.243     | 0.9862          | 0.9854     | 0.0614 |
| <b>1250</b>                | 1.280  | 0.240       | 7.761     | 0.017          | 0.017       | 0.226     | 0.9888          | 0.9881     | 0.0555 |
| <b>1500</b>                | 1.272  | 0.210       | 8.062     | 0.019          | 0.014       | 0.237     | 0.9882          | 0.9875     | 0.0564 |
| <b>1750</b>                | 1.254  | 0.237       | 8.447     | 0.019          | 0.019       | 0.236     | 0.9858          | 0.9850     | 0.0622 |
| <b>2000</b>                | 1.246  | 0.244       | 8.563     | 0.018          | 0.019       | 0.225     | 0.9850          | 0.9842     | 0.0636 |
| <b>2500</b>                | 1.212  | 0.250       | 9.482     | 0.023          | 0.019       | 0.240     | 0.9848          | 0.9839     | 0.0624 |
| <b>3000</b>                | 1.198  | 0.227       | 9.516     | 0.019          | 0.017       | 0.204     | 0.9868          | 0.9860     | 0.0581 |
| <b>4000</b>                | 1.112  | 0.208       | 10.300    | 0.020          | 0.015       | 0.196     | 0.9893          | 0.9887     | 0.0485 |
| <b>5000</b>                | 1.052  | 0.193       | 10.850    | 0.014          | 0.010       | 0.139     | 0.9953          | 0.9950     | 0.0316 |

**Table S2.** Primers used for PCR amplification and Sanger sequencing to verify the mutations in SaROEO.

| <b>SaROEO mutations</b> | <b>Forward primer (5' → 3')</b> | <b>Reverse primer (5' → 3')</b> |
|-------------------------|---------------------------------|---------------------------------|
| SAUSA300_RS03770        | ATCGCATGGGGATGATGCTT            | TGGGCTACAACTCATATTTGCTT         |
| SAUSA300_RS05495        | GCACCGACTAGTACCGCATT            | GTACAGCCCCCTCAAGCATT            |
| <i>hepT</i>             | AAATCACTTCCGACCGGCTT            | CGTAGTTTTACAGGGGGCGT            |
| <i>accA</i>             | ACCGCCAAGTGGTTCAGAAA            | TTGCGCGTTTGCAAGAAAGA            |