**S1 Text. Data for displacement of F’*prolac* shown in Fig 4A.**

Numbers are cfu ml-1 bacterial suspension from the mating filter from day 0 to day 5.

RK2Δ*aph*

|  |  |  |  |
| --- | --- | --- | --- |
| Day | HB101[RK2Δaph] | mean | SD |
| 0 | 8.8E+04 | 5.9E+04 | 7.4E+04 | 1.5E+04 |
| 1 | 1.7E+08 | 4.8E+08 | 3.2E+08 | 1.5E+07 |
| 2 | 8.1E+08 | 1.8E+09 | 1.3E+09 | 4.5E+08 |
| 3 | 1.8E+o9 | 1.8E+09 | 1.8E+09 | 0 |
| 4 | 1.8E+09 | 2.0E+09 | 1.9E+09 | 1.0E+08 |
| 5 | 2.2E+09 | 2.0E+09 | 2.1E+09 | 1.0E+08 |

|  |  |  |  |
| --- | --- | --- | --- |
| Day | JM109[±F’proAB] | mean | SD |
| 0 | 7.5E+08 | 7.3E+08 | 7.4E+08 | 5.0E+07 |
| 1 | 3.6E+09 | 3.1E+09 | 3.4E+09 | 2.5E+08 |
| 2 | 4.1E+09 | 5.0E+09 | 4.6E+09 | 4.5E+08 |
| 3 | 4.0E+09 | 3.6E+09 | 3.8E+09 | 2.0E+08 |
| 4 | 4.4E+09 | 3.5E+09 | 4.0E+09 | 4.5E+08 |
| 5 | 4.1E+09 | 5.5E+09 | 4.8E+09 | 7.0E+08 |

|  |  |  |  |
| --- | --- | --- | --- |
| Day | JM109[F’proAB] | mean | SD |
| 0 | 8.3E+08 | 1.1E+08 | 4.7E+08 | 3.6E+08 |
| 1 | 3.7E+09 | 3.6E+09 | 3.6E+09 | 5.0E+07 |
| 2 | 4.2E+09 | 4.2E+09 | 4.2E+09 | 0 |
| 3 | 4.6E+09 | 3.7E+09 | 4.2E+09 | 4.5E+08 |
| 4 | 4.8E+09 | 4.4E+09 | 4.6E+09 | 2.0E+08 |
| 5 | 5.5E+08 | 4.6E+09 | 2.6E+09 | 4.5E+08 |

|  |  |  |  |
| --- | --- | --- | --- |
| Day | JM109[±F’proAB + RK2Δ*aph*] | mean | SD |
| 0 | 0 | 0 | 0 | 0 |
| 1 | 4.4E+07 | 6.4E+07 | 5.4E+07 | 1.0E+07 |
| 2 | 2.5E+09 | 2.6E+09 | 2.6E+09 | 5.0E+07 |
| 3 | 1.9E+09 | 1.8E+09 | 1.9E+09 | 5.0E+07 |
| 4 | 2.3E+09 | 1.7E+09 | 2.0E+09 | 3.0E+08 |
| 5 | 2.5E+09 | 2.9E+09 | 2.7E+09 | 2.0E+08 |

pCURE-F-RK2

|  |  |  |  |
| --- | --- | --- | --- |
| Day | HB101[pCURE-F-RK2] | mean | SD |
| 0 | 7.3E+04 | 4.6E+04 | 6.9E+04 | 1.3E+04 |
| 1 | 1.5E+08 | 3.4E+08 | 2.4E+08 | 8.9E+07 |
| 2 | 8.7E+08 | 2.0E+09 | 1.5E+09 | 5.6E+09 |
| 3 | 2.6E+09 | 2.2E+09 | 2.4E+09 | 4.0E+08 |
| 4 | 9.0E+08 | 2.3E+09 | 1.6E+09 | 2.0E+08 |
| 5 | 2.9E+09 | 2.2E+09 | 2.6E+09 | 3.5E+08 |

|  |  |  |  |
| --- | --- | --- | --- |
| Day | JM109[±F’proAB] | mean | SD |
| 0 | 7.5E+08 | 7.4E+08 | 7.6E+08 | 5.0E+07 |
| 1 | 5.1E+09 | 4.5E+09 | 4.8E+09 | 3.0E+08 |
| 2 | 3.5E+09 | 3.5E+09 | 3.5E+09 | 8.0E+08 |
| 3 | 1.2E+09 | 2.8E+09 | 2.0E+09 | 8.0E+08 |
| 4 | 2.3E+09 | 2.2E+09 | 2.3E+09 | 5.0E+07 |
| 5 | 2.2E+09 | 2.0E+09 | 2.1E+09 | 5.0E+07 |

|  |  |  |  |
| --- | --- | --- | --- |
| Day | JM109[F’proAB] | mean | SD |
| 0 | 7.9E+08 | 7.4E+08 | 7.7E+08 | 2.5E+07 |
| 1 | 4.6E+09 | 4.3E+09 | 4.4E+09 | 5.0E+07 |
| 2 | 4.3E+09 | 4.3E+09 | 4.3E+09 | 0 |
| 3 | 2.9E+09 | 2.8E+09 | 2.9E+09 | 5.0E+07 |
| 4 | 2.4E+09 | 2.7E+09 | 2.6E+09 | 1.5E+08 |
| 5 | 1.8E+09 | 1.7E+09 | 1.7E+09 | 2.5E+08 |

|  |  |  |  |
| --- | --- | --- | --- |
| Day | JM109[±F’proAB + pCURE-F-RK2] | mean | SD |
| 0 | 0 | 0 | 0 | 0 |
| 1 | 5.3E+07 | 9.8E+07 | 7.5E+07 | 2.3E+06 |
| 2 | 2.9E+09 | 2.0E+09 | 2.4E+09 | 4.5E+08 |
| 3 | 1.2E+09 | 1.2E+09 | 1.2E+09 | 0 |
| 4 | 2.3E+09 | 9.7E+08 | 1.6E+09 | 1.7E+08 |
| 5 | 1.4E+09 | 1.2E+09 | 1.3E+09 | 5.0E+07 |

pUB307Δ*aph*

|  |  |  |  |
| --- | --- | --- | --- |
| Day | HB101[pUB307Δ*aph*] | mean | SD |
| 0 | 2.5E+06 | 3.1E+06 | 2.8E+06 | 2.8E+05 |
| 1 | 1.1E+07 | 1.1E+07 | 1.1E+07 | 0 |
| 2 | 1.1E+08 | 1.3E+08 | 1.2E+08 | 8.5E+06 |
| 3 | 2.5E+08 | 1.5E+08 | 2.0E+08 | 5.0E+07 |
| 4 | 1.6E+09 | 1.5E+09 | 1.6E+09 | 5.5E+07 |
| 5 | 1.1E+09 | 7.5E+08 | 9.2E+08 | 1.7E+08 |

|  |  |  |  |
| --- | --- | --- | --- |
| Day | JM109[±F’proAB] | mean | SD |
| 0 | 5E+09 | 5.3E+09 | 5.2E+09 | 1.5E+08 |
| 1 | 4.1E+09 | 5.1E+09 | 4.6E+09 | 5.0E+08 |
| 2 | 5.8E+09 | 1.4E+10 | 9.7E+09 | 3.0E+08 |
| 3 | 5.0E+09 | 4.3E+09 | 4.6E+09 | 3.5E+08 |
| 4 | 4.8E+09 | 5.4E+09 | 5.1E+09 | 3.0E+08 |
| 5 | 4.9E+09 | 4.1E+09 | 4.5E+09 | 4.0E+08 |

|  |  |  |  |
| --- | --- | --- | --- |
| Day | JM109[F’proAB] | mean | SD |
| 0 | 5.3E+09 | 5.0E+09 | 5.1E+09 | 1.5E+08 |
| 1 | 1.9E+09 | 6.0E+09 | 4.0E+09 | 2.1E+09 |
| 2 | 4.9E+09 | 1.3E+10 | 8.8E+09 | 3.2E+09 |
| 3 | 4.1E+09 | 3.6E+09 | 3.9E+09 | 2.5E+08 |
| 4 | 5.1E+09 | 5.6E+09 | 5.3E+09 | 2.5E+08 |
| 5 | 4.5E+09 | 4.3E+09 | 4.4E+09 | 1.0E+08 |

|  |  |  |  |
| --- | --- | --- | --- |
| Day | JM109[±F’proAB + pUB307Δ*aph*] | mean | SD |
| 0 | 0 | 0 | 0 | 0 |
| 1 | 1.9E+07 | 2.0E+07 | 1.96E+07 | 5.00E+05 |
| 2 | 1.4E+07 | 2.3E+07 | 1.84E+07 | 4.50E+06 |
| 3 | 2.5E+09 | 2.6E+09 | 2.50E+09 | 5.00E+08 |
| 4 | 3.7E+09 | 4.2E+09 | 3.91E+09 | 2.50E+08 |
| 5 | 3.6E+09 | 2.9E+09 | 3.21E+09 | 2.50E+08 |

pCURE-F-307

|  |  |  |  |
| --- | --- | --- | --- |
| Day | HB101[pCURE-F-307] | mean | SD |
| 0 | 2.2E+06 | 2.5E+06 | 2.3E+06 | 2.3E+06 | 1.9E+05 |
| 1 | 1.5E+07 | 9.8E+06 | 1.6E+07 | 1.3E+07 | 3.3E+06 |
| 2 | 2.7E+08 | 3.3E+08 | 2.8E+08 | 2.9E+08 | 3.4E+07 |
| 3 | 7.5E+08 | 5.2E+08 | 3.1E+08 | 5.2E+08 | 2.2E+08 |
| 4 | 1.5E+09 | 9.9E+08 | 2.2E+09 | 1.58E+09 | 6.2E+08 |
| 5 | 1.1E+09 | 1.4E+09 | 1.8E+09 | 1.44E+09 | 3.4E+08 |

|  |  |  |  |
| --- | --- | --- | --- |
| Day | JM109[±F’proAB] | mean | SD |
| 0 | 5.1E+09 | 4.9E+09 | 5.9E+09 | 5.297E+09 | 4.9E+08 |
| 1 | 5.2E+09 | 9.9E+09 | 2.5E+10 | 1.329E+10 | 1.0E+10 |
| 2 | 4.1E+09 | 4.8E+09 | 1.5E+10 | 7.897E+09 | 6.0E+09 |
| 3 | 2.9E+09 | 2.7E+09 | 3.6E+09 | 3.067E+09 | 4.5E+08 |
| 4 | 2.6E+09 | 2.7E+09 | 3.5E+09 | 2.927E+09 | 4.8E+08 |
| 5 | 1.8E+09 | 2.4E+09 | 2.5E+09 | 2.237E+09 | 4.1E+08 |

|  |  |  |  |
| --- | --- | --- | --- |
| Day | JM109[F’proAB] | mean | SD |
| 0 | 4.5E+09 | 4.6E+09 | 6.1E+09 | 5.1E+09 | 9.3E+08 |
| 1 | 5.2E+09 | 1.1E+10 | 2.4E+10 | 1.3E+10 | 9.8E+09 |
| 2 | 1.9E+09 | 1.8E+09 | 4.6E+09 | 2.7E+09 | 1.6E+09 |
| 3 | 1.1E+08 | 1.4E+08 | 1.8E+08 | 1.4E+08 | 3.8E+07 |
| 4 | 1.0E+07 | 2.4E+07 | 3.0E+07 | 2.1E+07 | 9.9E+06 |
| 5 | 2.6E+06 | 1.3E+07 | 1.1E+07 | 8.9E+06 | 5.6E+06 |

|  |  |  |  |
| --- | --- | --- | --- |
| Day | JM109[±F’proAB + pCURE-F-307] | mean | SD |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 5.6E+07 | 5.6E+07 | 1.0E+07 | 4.1E+07 | 2.6E+07 |
| 2 | 2.0E+09 | 1.9E+09 | 2.9E+09 | 2.3E+09 | 5.7E+08 |
| 3 | 1.3E+09 | 1.3E+09 | 1.5E+09 | 1.3E+09 | 8.4E+07 |
| 4 | 1.8E+09 | 1.8E+09 | 2.6E+09 | 2.1E+09 | 4.5E+08 |
| 5 | 1.3E+09 | 1.4E+09 | 2.1E+09 | 1.6E+09 | 4.2E+08 |