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| --- | --- | --- | --- |
| **Parameters** | **Value** | **Unit** | **Description** |
| *r* | 1 | h-1 | Replication rate |
| *b* | 2-100 | xMIC | Benefit per mutation |
| *c* | 0.008-0.2 | - | Cost per mutation |
| *u* | 3\*10-6, 1\*10-6 | Probability per cell division | Mutation rate (AB, AMP) |
| *K* | 109 | CFU | Carrying capacity |
| $γ$ | 0.01 | h-1 | Death rate |
| $ψ\_{min}$ | -5, -50 | h-1 | Min. growth rate (AB, AMP) |
| *a* | 0.1-100 | xMIC | Drug concentration |
| *ka* | 0.5 | h-1 | Drug absorption rate |
| *k* | 0.1 | h-1 | Drug decay rate |
| *κ* | 1.5, 5 | - | Steepness of the PD curve (AB, AMP) |
| *τ* | 1/24 | h-1 | Dose frequency |
| *k2cmax* | 12-96 | h | Time till max. dose |
| *Mi* | 0-109 | CFU | Population with i mutations |
| *Mpi* | 0-109 | CFU | Population with a plasmid and i mutations |
| *bp* | 0.6-24 | xMIC | Benefit of the plasmid |
| *cp* | 0.03-0.1 | - | Cost of the plasmid |
| *α* | 3\*10-10 | h-1 | Plasmid acquisition rate from the environment |
| *β* | 3\*10-8 | h-1 | Plasmid acquisition rate from *Mpi* carriers  |
| $P\_{max}$ | 105 | CFU | Max. acceptable pathogen burden  |