**Table S2.**

|  |  |  |
| --- | --- | --- |
|  | ***parameter*** | ***value*** |
| *p*mort | host age-specific mortality rate |  |
| *β* | daily transmission probability | [0.05..1] |
| *ρ* | recombination rate  | [0..0.01] |
| *κ* | proportionality factor | [0.5..1] |
| *1/σA,a* | infection length mediated by high-affinity binding alleles | [50..120] days |
| *1/σB,b* | infection length mediated by low-affinity binding alleles | [20..80] days |
| *Nh* | human population size | [5000..50000] |