

**S5 Table: Model comparisons when  $T_0$  is varied 1/2 and 2 times its set point estimate used in Table 1 in the main text. Median log-likelihood values, BIC and DIC values for all models considered are reported.**

Model	Log-likelihood	BIC	DIC
Low value: $T_0 = 5 \times 10^4$ cells/ml			
1	-2341	4857	4723
$OAS_1$	-2342	4731	4690
$OAS_2$	-2341	4736	4690
$ADE$	-2376	4731	4689
$SS_\beta$	-2328	4711	4663
$SS_q$	-2340	4735	4688
$SS_{qT}$	-2333	4720	4672
$SS_{\beta ADE}$	-2330	4735	4669
High value: $T_0 = 2 \times 10^5$ cells/ml			
1	-2352	4746	4710
$OAS_1$	-2353	4754	4713
$OAS_2$	-2353	4759	4712
$ADE$	-2352	4753	4711
$SS_\beta$	-2338	4732	4685
$SS_q$	-2352	4758	4711
$SS_{qT}$	-2342	4740	4693
$SS_{\beta ADE}$	-2341	4757	4691