

Parameter	Definition	Value from LHS
α_1	Max. T_0 cell recruitment	0.03
α_2	Max. growth rate for T_0	1.2
α_3	Max. T_1/T_2 recruitment	0.03
α_4	M_R recruitment by M_A, M_I	0.03
α_5	IFN- γ by T_1	0.03
α_7	IFN- γ by T_0	0.063
α_8	IL-12 by M_A	0.00008
α_{10}	Max. IL-12 from M_R	0.0009
α_{11}	IL-4 by T_0	0.00028
α_{12}	IL-4 by T_2	0.0028
α_{13}	Max. IL-12 from M_R	0.0125
α_{14}	Max. IL-10 from M_A	0.0025
α_{16}	IL-10 by T_1	0.001
α_{17}	IL-10 by T_2	0.001
α_{18}	Max. IL-10 by T_0	0.0002
α_{19}	Growth rate, B_I	0.59
α_{20}	Growth rate, B_E	0.29
α_{21}	Max. M_R recruitment by M_R	0.28
α_{22}	IL-12 by M_I	0.00008
c_2	Half-sat., IL-12 on IL-10	0.05
c_3	Half-sat., IL-10 on M_A deactivation	0.2
c_4	Half-sat., T_T to M_I ratio for M_I lysis	10.0
c_8	Half-sat., bacteria on M_R activation	50.0
c_9	Half-sta., bacteria on chronic infection	500.0
c_{10}	Half-sat., bacteria on IFN- γ by $CD8^+$	5.0
c_{12}	Half-sat., total bacteria IL-10 by M_R	5.0
c_{14}	Half-sat., M_A of IFN- γ by $CD4^+$	300.0
c_{15}	Half-sat., M_A on T_0 proliferation	3.0
c_{18}	Half-sat., bacteria on IL-12 by M_R	5.0
c_{28}	Half-sat., bacteria on M_R recruit. by M_R	1000.0
k_2	Chronic infection rate	0.3
k_3	M_R activation rate	0.3
k_4	M_A deactivation by IL-10	0.36
k_6	Max. T_0 to T_1 rate	1.2936
k_7	Max. T_0 to T_2 rate	1.02
k_{14}	Max. T cell lysis of M_I	1.5
k_{15}	Max. killing of bacteria by M_A	0.04505
k_{17}	Max. M_I death due to bacteria	0.11
k_{18}	Max. killing of bacteria by M_R	5e-6

Parameter	Definition	Value from LHS
μ_{t0}	Death rate, T_0	0.3333
μ_{t1}	Death rate, T_1	0.3333
μ_{t2}	Death rate, T_2	0.3333
μ_r	Death rate, M_R	0.011
μ_{da}	Deactivation rate, M_A	0.3333
μ_{ig}	IFN- γ decay rate	3.0
μ_{i12}	IL-12 decay rate	1.18
μ_{i4}	IL-4 decay rate	2.77
μ_{i10}	IL-10 decay rate	3.6968
p	Max. % inhibition of apoptosis	0.7
N_{tb}	Max. MOI of M_I	50.0
s_g	Max. IFN- γ from CD8 ⁺ and NK	0.7
s_m	M_R source	3.3
w	Weighting of TBI relative to TBE	0.014
$sc1$	Half-sat., IFN- γ on T_0 to T_1	0.1
$sc2$	Half-sat., IL-4 on T_0 to T_1	0.02
$sc3$	Half-sat., IFN- γ on M ϕ activation	0.1
$sc4$	Half-sat., IL-12 on IFN- γ	0.05
$sc5$	Half-sat., IFN- γ on IL-12	0.1
$sc6$	Half-sat., IL-10 & IFN- γ on IL-10	0.2
$sc7$	Half-sat., IL-12 on NK & CD8 ⁺ IFN- γ	0.2
P_w	Exponent used in Hill functions	3.0