S2 Table. Kinetic rate constants used in the model, as proposed by [2].

Biochemical reaction	Rate Constant	Value	Source
Hydrolysis of C3(H_2O)	$k^+_{C3H_2O}$	$8.3 \times 10^{-10}\,\mathrm{ms}^{-1}$	[9]
Association of factor B to C3b	k^+_{C3bB}	$0.000\,213\,\mu\mathrm{M}^{-1}\,\mathrm{ms}^{-1}$	[10]
Dissociation of complex C3bB	k^-_{C3bB}	$0.000\,155\,\mathrm{ms}^{-1}$	[10]
Attachment of fnC3b to host and pathogen	k^+_{fC3b}	$0.42\,\mu\mathrm{M}^{-1}\,\mathrm{ms}^{-1}$	Calculated, see S2 Appendix
Attachment of hnC3b to host	k^+_{hC3b}	varying	Calculated, see S5 Appendix
Attachment of pnC3b to pathogen	k^+_{pC3b}	varying	Calculated, see S5 Appendix
Association of nC3b (fnC3b, hnC3b and pnC3b) to water	k^-_{nC3b}	$11.55\,\mathrm{ms}^{-1}$	Calculated, see S3 Appendix
Association of factor H to C3b	k^+_{C3bH}	$0.0052\,\mu\mathrm{M}^{-1}\,\mathrm{ms}^{-1}$	[11]
Dissociation of complex C3bH	k^-_{C3bH}	$0.0325\,\mathrm{ms}^{-1}$	[11]
Association of factor H to heparin dp32/dp36 (HS)	k^+_{HSH}	$0.0065\,\mu\mathrm{M}^{-1}\,\mathrm{ms}^{-1}$	[12], estimated from dissociation constant
Dissociation of complex HSH	k^-_{HSH}	$0.003\,25\,\mathrm{ms}^{-1}$	[12], estimated from dissociation constant
Association of factor H to Pra1	k^+_{Pra1H}	$0.8673\,\mu\mathrm{M}^{-1}\,\mathrm{ms}^{-1}$	own measurements, estimated from dissociation constant
Dissociation of complex Pra1H	k^-_{Pra1H}	$0.001\,62\,\mathrm{ms}^{-1}$	own measurements, estimated from dissociation constant
Inflow of factor H	k^+_H	$4.88 \times 10^{-5}\,\mu\mathrm{M}\,\mathrm{ms}^{-1}$	Calculated, see S6 Appendix
Inflow of C3	k^+_{C3}	$8.23 \times 10^{-5}\,\mu\mathrm{M}\,\mathrm{ms}^{-1}$	Calculated, see S6 Appendix
Outflow of FH and C3	k^-_{blood}	$1.525 \times 10^{-5}\,\mathrm{ms}^{-1}$	Calculated, see S6 Appendix
Activation of complex C3bB by Factor D	k_{cat}C3bB K_MC3bB	$0.0021\,\mathrm{ms}^{-1}$ $0.1\,\mu\mathrm{M}$	[2]
Cleavage of C3 by C3 convertase, C3bBb	k_{cat}C3bBb K_MC3bBb	$0.0018\,\mathrm{ms}^{-1}$ $5.9\,\mu\mathrm{M}$	[13]
Cleavage of C3b by inhibitor Factor I	k_{cat}C3bH K_MC3bH	$0.0013\,\mathrm{ms}^{-1}$ $0.25\,\mu\mathrm{M}$	[11]