

**Table S2 Parameters for the 3D model.**

parameters	values	unit	parameters	Values	unit
a1	$4.50 \times 10^{+04}$	/M/s	tp2_2	$1.00 \times 10^{-04}$	/s
a2	$6.00 \times 10^{+03}$	/M/s	tr1	$4.00 \times 10^{-03}$	/s
a3	$9.00 \times 10^{+03}$	/M/s	tr2	$1.70 \times 10^{+05}$	/M/s
a4	$5.00 \times 10^{+05}$	/M/s	a·tr2a	$1.50 \times 10^{-12}$	M/s
a5	$5.00 \times 10^{+05}$	/M/s	b·tr2b	$2.30 \times 10^{-13}$	M/s
a6	$5.00 \times 10^{+05}$	/M/s	e·tr2e	$1.70 \times 10^{-13}$	M/s
a7	$3.70 \times 10^{+05}$	/M/s	tr3	$2.80 \times 10^{-04}$	/s
a8	$4.80 \times 10^{+04}$	/M/s	IKK	$2.00 \times 10^{-09}$	M
a9	$7.00 \times 10^{+04}$	/M/s	IKK.IkBa	0	M
d1	$1.25 \times 10^{-03}$	/s	IKK.IkBa.NFkB	0	M
d2	$1.75 \times 10^{-03}$	/s	IKK.IkBb	0	M
d3	$1.75 \times 10^{-03}$	/s	IKK.IkBb.NFkB	0	M
d4	$5.00 \times 10^{-04}$	/s	IKK.IkBe	0	M
d5	$5.00 \times 10^{-04}$	/s	IKK.IkBe.NFkB	0	M
d6	$5.00 \times 10^{-04}$	/s	IkBa	$2.40 \times 10^{-07}$	M
deg1	$1.00 \times 10^{-04}$	/s	IkBa.NFkB	$3.02 \times 10^{-07}$	M
deg2	$2.10 \times 10^{-05}$	/s	IkBb	$1.34 \times 10^{-10}$	M
k01	$8.00 \times 10^{-04}$	/s	IkBb.NFkB	$1.67 \times 10^{-10}$	M
k02	$8.30 \times 10^{-05}$	/s	IkBe	$9.93 \times 10^{-11}$	M
k1	$9.00 \times 10^{-02}$	/s	IkBe.NFkB	$1.24 \times 10^{-10}$	M
k2	$1.40 \times 10^{-02}$	/s	NFkB	$1.29 \times 10^{-09}$	M
k2_2	$5.60 \times 10^{-02}$	/s	n_IkBa	$1.66 \times 10^{-09}$	M
r1	$3.70 \times 10^{-02}$	/s	n_IkBa.NFkB	$5.13 \times 10^{-09}$	M
r2	$1.50 \times 10^{-02}$	/s	n_IkBb	$4.43 \times 10^{-13}$	M
r3	$2.20 \times 10^{-02}$	/s	n_IkBb.NFkB	$3.59 \times 10^{-13}$	M
r4	$1.85 \times 10^{-01}$	/s	n_IkBe	$3.27 \times 10^{-13}$	M
r5	$7.50 \times 10^{-02}$	/s	n_IkBe.NFkB	$2.65 \times 10^{-13}$	M
r6	$1.10 \times 10^{-01}$	/s	n_NFkB	$4.92 \times 10^{-08}$	M
tp1	$3.00 \times 10^{-04}$	/s	t_IkBa	$1.73 \times 10^{-07}$	M
tp1_2	$1.50 \times 10^{-04}$	/s	t_IkBb	$9.60 \times 10^{-11}$	M
tp2	$2.00 \times 10^{-04}$	/s	t_IkBe	$7.10 \times 10^{-11}$	M